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RELATING CHIEFLY TO THE YEAR

1922

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SUPERINTENDED BY

W. L. SCLATER, M.A., F.L.S.

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Papers and Memoirs intended for this work should be addressed to "The Editor of the Zoological Record, Zoological Society, Regent's Park, London, N.W. 8." It is earnestly requested that in the case of separately-printed copies of papers so forwarded, the *original pagination* may be indicated.

PREFACE.

THE present volume of the Zoological Record closely resembles its predecessor. The only change of any importance is that in the Section Arachnida, all the titles referring to that group have been placed together in one list, as has always been done in the case of the Insecta.

There have been one or two changes among the Recorders. The Brachiopoda and Bryozoa have been undertaken by Miss H. M. Muir Wood, M.Sc., in place of Mr. W. N. Edwards, and we are glad to be able to state that the Imperial Bureau of Entomology have consented to become responsible for the Insecta and that part for the present year has been compiled by the staff of the Bureau with the help of Messrs. N. D. Riley and W. H. T. Tams. Neither Miss Procter nor Mr. Hinton found themselves able to undertake the Reptiles and Mammalia respectively in the present volume, and the record for these groups have been compiled by the Editor, Mr. W. L. Sclater.

After the publication of Vol. 58 (literature of 1921) the Zoological Society made it known that in view of the greatly increased cost of production, it would cease issuing the Record unless it received substantial help from institutions and persons directly interested in zoological bibliography. The Society, in addition to providing the office accommodation and clerical work associated with publication, is prepared for the present to make an annual contribution of £500 towards the cost of the Record. Donations or promises, of which a list is appended, amounting to a total of £684 17s. 0d., have been received in respect of Vol. 59, now issued. It is hoped that this sum, together with the Society's contribution of £500 will leave a balance of receipts over expenditure which will be carried over towards the cost of Vol. 60. The Society, to prevent delay, has already sanctioned the compilation of Vol. 60 and of the next volume (61, literature of 1924), but the question of publication must again be held over until support has been secured. So far, the only gifts or promises towards

the publication of Vol. 60, in addition to any balance that may be carried forward and the Society's own contribution of £500, are £20 from the Society of Tropical Medicine and Hygiene and £5 5s. from the Challenger Society. The Imperial Entomological Bureau, which undertook the compilation of INSECTA for Vols. 59 and 60, on receipt of the usual recorders' fees, has now agreed to undertake the same work for Vol. 61 without payment—a most welcome support of moral and material value.

The Zoological Society has received widespread testimony as to the value of the Record to Zoological Science. But it has again to insist that such testimony, although agreeable, will not secure the continuance of the Record unless it assume the practical form of more subscriptions to the whole volume and the separate divisions, and donations towards the deficit.

> P. CHALMERS MITCHELL, Secretary. Zoological Society of London.

July, 1924.

DONATIONS AND PROMISES TO ZOOLOGICAL RECORD.

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	Carried forward	•••	• • •				201	19	6

EXPLANATORY.

This Volume is printed in the Divisions enumerated on p. vi.

The pagination of each Division is separate, and is given at the left-hand top corner of the pages. The number and name of the Division is given as a heading on each page. The date 1922 corresponding to the bulk of the literature indexed is given at the top of each page.

In the Subject Index of each Division authors are quoted by name only. The full references will be found in the Title Section of the Division.

The Literature indexed is mainly that of 1922 but includes entries for earlier years that have been received too late for inclusion in previous volumes.

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 - X. ARACHNIDA AND MYRIOPODA; including Gigantostraca, Eurypterida and Prototracheata.
 - XI. INSECTA.
- XII. PROCHORDATA: including Tunicata, Cephalochordata and Enteropneusta.
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I. COMPREHENSIVE ZOOLOGY

BY

W. L. SCLATER.

This section includes works that deal with more than one branch of Zoology, or that are of general interest to Zoologists. It is, therefore, not complete in itself as regards any one subject included in it. The special records complete each subject. A few memoirs included in the special records are repeated in this division.

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I.-TITLES.

- 1.—Abel, O. Allgemeine Paläontologie. Pp. 1-149 54 text-figs Berlin & Leipzig (Gruyter) 1921 8vo.
- 2.—Abel, O. "Ornimente und Rudimente." Mitt. Natw. Ver. Univ. Wien 1914 pp. 79-82.
- 3.—Aebly, J. Zur Frage der geometrischen Gestalt der normalen Hornhautoberfläche. Arch. Entw. Mech. Berlin 52 1922 pp. 223–231.
- 4.—Agduhr, E. Einige wahrscheinlich bisher unbekannte, teils im Ependym gelegene, teils in die fossa rhomboidea hineinragende Nervenendigungen. Acta Zool. Stockholm 3 1922 pp. 123-134 11 text-figs.
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- 6.—Annandale, N. The macroscopic fauna of Lake Biwa. Annot. Zool. Jap. Tokyo 10 1922 pp. 127–153.
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- 8.—Annandale, N. Museums and Taxonomic Zoology. Mus. J. London 21 1922 pp. 141–146.

Annandale, N. vide Sewell.

- 9.—Anselmi, R. Un precursore degli studi moderni sulla fecondazione e segmentazione dell'uovo. Atti soc. ligustica sc. lett. (N.S. of sci. nat. geogr.) Pavia 1 1922 pp. 41-44 1 pl.
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- 40.—Dammerman, K. W. The fauna of Krakatau, Verlaten Island and Sebesy. Treubia Batavia 2 1922 pp. 61–112 map.
- 41.—Deecke, W. Über die Lage der Versteinerungen im Gestein. Ber. natf. Ges. Freiburg i. B. 23 1921 pp. 86-104.
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ARRANGED BY

H. M. WOODCOCK, D.Sc.

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fig. xxxiii fig. 6, tesselata p. 142 fig. 8 pl. xxxiv fig. 1, spp. n., Oligocene, Mint Springs, Cushman Prof. Papers 129 F.—Q. wirgauensis sp. n. Jurassic, Paalzow Abh. nat.-hist. Ges. Nürnberg 19 p. 221 pl. xli figs. 23–25.

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[Vacant.]

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ARRANGED BY

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ARRANGED BY

A. KNYVETT TOTTON.

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V. ECHINODERMA

ARRANGED BY

H. B. PRESTON.

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† Phymosoma with P. pseudotiara [? sp. n.] Upper Cretaceous Spain, Lam-BERT Ann. soc. linn. Lyon 66 p. 7 pl. i figs. 1, 4.—P., JACKSON 96 p. 25.

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†Polydiadema with P. cantabrum [? sp. n.] Lower Cretaceous Spain, LAMBERT Ann. soc. linn., Lyon 66 p. 5.—P., LAMBERT 116 p. 9.

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†Porosoma, Lambert 112 p. 21.

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†Schizobrissus, Lambert 113.

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†Sismondia javana sp. n. Java, Gerth Samml. geol. Reichsmus. 1 p. 502 pl. lxii figs. 4, 4a.—S., Jackson 96 p. 30.

†Spatangomorpha paucituberculata sp. n. Java, Gerth Samml, geol. Reichsmus 1 p. 513 pl. lii figs. 6, 6a.

†Spatangus with S. seccoi sp. n. Miocene Italy, Stefanini Pal. Ital. Pisa 25 p. 138 pls. xiv [viii] fig. 6; xv [ix] fig. 7.

Sphaerechinus granularis, Landauer 119.

†Stereocidaris sancti-martini sp. n. Cretaceous France, Valette Bul. soc. sci. Yonne 74 p. 30.—S., Lambert 114 p. 4.

Strongylocentrotus droebachensis, Stephensen 171 p. 69.—S. lividus, Gray 86.—S. l., Landauer 119.—S., Sampson 160,—S., Soheuring 161 p. 145.

†Studeria, Gerth 75 p. 506.

Stylocidaris gen. n. Mortensen, Echin, Deutsch. Sudpolar Exped. 1909 p. 52. Genotype: Cidaris affinis Phil. [Accidentally omitted from previous records.]—S., CLARK 33 p. 105.

†Temnechinus, Gerth 75 p. 501.

†Temnopleurus, Gerth 75 p. 501.

Tretocidaris, Clark 33 p. 106.

Tripneustes, Clark 33 p. 113.

†Tylocidaris, Lambert 114 p. 4.

†Typocidaris with T. mengaudi [? sp. n.] Upper Cretaceous Spain, Lambert Ann. soc. linn. Lyon 66 pp. 2-3 pl. i figs. 5, 9.—T., Faure-Marguerit 62 p. 29.

† Zuffardia, Cheochia-Rispoli 29 p. 88 & 31 p. 21.

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Anasterias, Fisher 66 p. 595.

Asterias rubens, Pelseneer 152.— A. glacialis, Dalco 46.—A., Bowen 17. A., Scheuring 161 p. 146.

Asterina orthodon sp. n. Hong Kong, FISHER Ann. Mag. Nat. Hist. 10 pp. 415-418 pl. x.—A. gibbosa, Zirpolo 186.

Calliaster elegans, regenerator spp. n. Malaysia, Döderlein Bijdr. Dierk. Amsterdam 1922 pp. 47-51.

Coelasterias, FISHER 66 p. 598.

†Comptonia wintoni sp. n. Cretaceous U.S.A., Adkins Univ. Texas Bul. 1856 p. 97 pl. vii figs. 4-5.

Cribrella, SCHEURING 161 p. 147.

Cienodiscus, Nordaled 141 p. 12.— C., Scheuring 161 p. 149.

† Eoactis, Spencer 166 p. 205.

Evasterias, Kilborn & Macleod 102 p. 323.

Hippasteria, Scheuring 161 p. 148.

Hymenaster, Scheuring 161 p. 148.

Koehleraster gen. n. type Anasterias octoradiata, Koehler, Fisher Ann. Mag. Nat. Hist, 10 p. 596.

Leptoptychaster, Scheuring 161 p. 149.

Luidia, Kilborn & Macleod 102 p. 323.

Lysastrosoma gen. n. with L. anthosticia sp. n. Japan, Fisher Ann. Mag. Nat. Hist. 10 p. 590.

† Metopaster, Adkins 1 p. 97.

†Palasterina, Spencer 166 p. 219.

Parastichaster, Fisher 66 p. 596.

Patiria miniata, NEWMAN 140.

Pedasterias, FISHER 66 p. 594.

†Pentaceros americanus sp. n. Crotaceous U.S.A., Adkins Univ. Toxas Bul. 1856 p. 99 pl. vii figs. 1-3.

†Pentagonaster, ADKINS 1 p. 95.

Pisaster, Kilborn & Macleod 102 p. 323.

Pontaster, Scheuring 161 p. 149.

Poraniomorpha, Scheuring 161 p. 148.

† Prostaster constellatus, Barrois, Pruvost & Dubois 5.

Pteraster, Scheuring 161 p. 147.

Pycnopodia helianthoides, Kjerschow-Agersborg 105.—P., Kilborn & Macleod 102 p. 323.

†Schuchertia with S. wenlocki sp. n. Wenlockian Scotland, Spencer Pal. Soc. London 5 pp. 208-218 pls. xiv figs. 5-6; xv figs. 2-4.

Solaster, Scheuring 161 p. 147.

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Amphiactis, Koehler 109 p. 204.

Amphilepis with A. remittens sp. n. Malaysia, Koehler Bul. U. S. Nat. Mus. 5 No. 100 pp. 202–203 pl. lxix figs. 7, 8.—A., Broom 19 p. 63.

Amphilimna multispina sp. n. Mallaysia, Koehler Bul. U. S. Nat. Mus. 5 No. 100 pp. 183–186 pls. lxi figs. 4-9; xevi fig. 7.

Amphiodia with A. debita sp. n. Malaysia, Koehler Bul. U. S. Nat. Mus. 5 No. 100 pp. 167–169 pl. lxix figs. 3, 4.—

A. destinata sp. n. Southern Ocean, Koehler Austr. Ant. Exp. 1911-14 Sci. Repts. Zool. 8 pp. 32-34 pl. lxxix figs. 4-7.—A., Campbell 22.

Amphiophiura with A. canaliculata, fastigiata, spatulifera spp. n. Malaysia, Koehler Bul. U. S. Nat. Mus. 5 No. 100 pp. 357-369 pl. lxxxii figs. 1-8, 10-13.—A. relegata sp. n. Southern Ocean, Koehler Austr. Ant. Exp. 1911-14 Sci. Repts. Zool. 8 pp. 57-59 pl. lxxxviii figs. 1-7.

Amphiopholis with A. loripes sp. n. Malaysia, Koehler Bul. U. S. Nat. Mus. 5 No. 100 pp. 163-166 pl. lxviii figs. 4, 5.—A., Clark 35.

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Astrodia bispinosa sp. n. Pacific, Koehler Austr. Ant. Exp. 1911-14 Sci. Repts., Zool. 8 pp. 12-15 pl. lxxvi.

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Neoplax crassipes sp. n. Malaysia, Koehler Bul. U. S. Nat. Mus. 5 No. 100 p. 22 pl. ii figs. 1-3.

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Ophiactis amator sp. n. Southern Ocean, Koehler Austr. Ant. Exp. 1911-14 Sci. Repts. Zool. 8 pp. 34-36 pl. lxxxi figs. 1-6.—O. with O. definita sp. n. Malaysia, Koehler Bul. U. S. Nat. Mus. 5 No. 100 pp. 186-195 pl. lxiv figs. 1, 2, 7.—O., Broch 19 p. 65.—O., Clark 35.

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Ophiogyptis, Koehler 109 p. 40.

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†Ophiolepis bertrandi sp. n. Rhaetian France, Lanquine Bull. Soc. géol. France 16 pp. 88, 96 pl. i.—O., Lange 120 p. 166.

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Ophiopteris, Campbell 22.

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Ophiopyrgus planulatus sp. n. Malaysia, Koehler Bul. U. S. Nat. Mus. 5 No. 100 pp. 355-357 pl. lxxxi figs. 3, 4.

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Ophiosparte gen. n. with O. gigas sp. n. Southern Ocean, Koehler Austr. Ant. Exp. 1911–14 Sci. Repts. Zool. 8 p. 21 pl. lxxvii figs. 1–8.

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Antedon, Scheuring 161 p. 151.

†Antedon, VALETTE 174.

†Balanocrinus with B. mexicanus sp. n. Upper Cretaceous Mexico, Springer Proc. U. S. Nat. Mus. Washington 61 p. 2 pl. i figs. 1-11.—B., VALETTE 174.

†Camptocrinus, Ehrenberg 56 p. 281.

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Commissia peregrina var. magnifica, ignota var. minuta varr. n. Japan, Gislán Upsala Vet. Soc. Acta 5 No. 6 pp. 21, 25 figs.

†Craspedocrinus schmidti gen. & sp. n. Devon, Germany, Dahmer Jahrb. geol. Landesanst. 40 T.2 p. 292 pl. xvi figs. 4-8.

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†Crinoidea Flexibilia, List of British species, BATHER 8.—C., YAKOWLEV 184.

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Diodontometra gen. n. (near Charitometra) bocki sp. n. Japan, Gislén Upsala Vet.-Soc. Acta 5 No. 6 pp. 121, 123 figs.

† Encrinus, ARTHABER, 3.

† Entrochus, ARTHABER 3; DIENER 53 p. 97.

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† Eupachycrinus, Morningstar 134. p. 154.

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†Homocrinus, Ehrenberg 56 p. 279.

Isocrinus asteria, Clark 36 p. 6.

† Isocrinus with I. parvus sp. n. Cretaceous Australia, Howchin Trans. R. Soc. S. Aust. 45 pp. 1-4.

†Lophocrinus, Weigelt 181.

† Mariacrinus, Ehrenberg 56 p. 273.

† Marsupites, DIBLEY & FAGG 52.

† Melocrinus pulcher and var. annulifera var. n. Devonian, Spriestersbach Jahrb. geol. Landesanst. 38 1 pp. 440-447 pls. xxiv figs. 1-7; xxv figs. 1-8.

Metacrinus nobilis var. tenuis var. n. interruptus f. ornatus f. n. Japan, Gislén Upsala Vet.-Soc. Acta 5 No. 6 p. 147 figs.

† Millericrinus, Faure-Marguerit 62 p. 27.

†Pentacrinus c.f. subangularis Miller, Lias descr. by Springer in Leffing-Well U. S. Geol. Surv., Prof. papr. 109 p. 119.—P., Faber 61.

Perissometra aranea sp. n. Japan, GISLÉN Upsala Vet.-Soc. Acta 5 No. 6 p. 120 figs.

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VI. VERMES

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H. M. WOODCOCK.

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VII. BRACHIOPODA AND BRYOZOA

BY

H. M. MUIR WOOD, M.Sc.

(a) BRACHIOPODA

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Acanthodesia gen. n. type Flustra savartii Eocene—Recent West Indies; †A. savartii forma monilifera form. n. Miocene West Indies, CANU & BASSLER 12 p. 79.

†Adeona porosa sp. n. Miocene West Indies, CANU & BASSLER 12 p. 94.

†Alderina tenuimuralis sp. n. Cretaceous Madagascar, Canu Ann. Paleont. Paris 11 1922 p. 18.

†Anornithopora implumis sp. n. Cretaceous England, Lang Cat, Cretac. Bryozoa 1922 p. 166.

†Atractosoecia gen. n. type Berenicea edwardsi p. 10 Jurassic France; walfordiana sp. n. p. 10 Jurassic England, Canu & Bassler 13.

†Bascomella gen. n. type gigantea sp. n. Carboniferous Ohio, Morningstar Bull. Geol. Surv. Ohio ser. 4 25 1922 p. 156.

†Bathosella sulcata sp. n. Cretaceous Madagascar, Canu Ann. Paléont, Paris 11 1922 p. 24.

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†Brachysoecia gen. n. type convexa sp. n. Cretaceous France, CANU & BASSLER 13 p. 22.

†Callopora levigata sp. n. Cretaceous Madagascar, Canu Ann. Paléont. Paris. 11 1922 p. 19.—†C. dumerilii var. latavar. n. Oligocene Leeward Islands, Canu & Bassler 12 p. 81.

†Calpensia tuberosa sp. n. Miocene France, Duvergier Act. soc. linn. 72 1920 p. 162.

†Cardioecia gen. n. type Bidiastopora neocomiensis Cretaceous Switzerland, CANU & BASSLER 13 p. 19.

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†Chilopora cretacea sp. n. Cretaceous France, Canu & Bassler 13 p. 106.

†Chorizopora parvicella sp. n. Miocene France, Duvergier Act. soc. linn. 72 1920 p. 166.

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†Coelopora cormoran p. 130, latebrosa p. 133, spp. n., Cretaceous Rügen, Lang Cat. Cretac. Bryozoa 1922.

†Conopeum ovale sp. n. Jamaica Miocene, CANU & BASSLER 12 p. 77.

†Corynostylus gen. n. type labiatus sp. n. p. 86, ellipticus sp. n. p. 87, Miocene West Indies, Canu & Bassler 12.

†Coscinopleura optabilis var. n. incrustans Cretaceous Madagascar, Canu Ann. Paléont. Paris 11 1922 p. 20.

†Cribrendoecium crassicostulatum sp. n. Miocene France, Duvergier Act. soc. linn. 72 1920 p. 166.

†Cribrilina? labiatula sp. n. Cretaceous Madagascar, Canu Ann. Paléont. Paris 11 1922 p. 22.

†Cupuladria gen. n. type Cupularia canariensis Miocene West Indies and Florida, Canu & Bassler 12 p. 77. Cupularia peyroti sp. n. nom. nud. Recent France, Duvergier Proc. Verb. Soc. Linn. Bordeaux 73 1921 p. 124.

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†Diaperoecia turonica p. 42, saillans p. 43, punctata p. 44, transversata p. 44, compressa p. 45, spp. n., Cretaceous France, Denmark and U.S.A., CANU & BASSLER 13.—†D. formosa sp. n. Cretaceous Madagascar, CANU Ann. Paléont. Paris 11 1922 p. 29.

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†Diplosolen entalophoroidea sp. n. Cretaceous Denmark, CANU & BASSLER 13 p. 47.

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†Hincksina scipio p. 159, rectangularis p. 160, spp. n., Miocene France, Duver-GIER Act. soc. linn. 72 1920.

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†Lunulites pyripora sp. n. Cretaceous Madagascar, Canu Ann. Paléont. Paris 11 1922 p. 17.

†Mecynoecia gracilis p. 12 Jurassic England; †M. stipata p. 15 Cretaceous France; M. obesa p. 12, spp. n., Recent Philippine Islands, CANU & BASSLER 13.

† Membranipora vaughani sp. n. Miocene West Indies, Canu & Bassler 12 p. 77.

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† Membraniporina cavala sp. n. Cretaceous Madagascar, Canu Ann. Paléont. Paris 11 1922 p. 17.

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†? Monotrypa circularis sp. n. Silurian Bohemia, KETTNER Bull. intern. Acad. François Joseph Prague 18 1913 p. 177.

† Mucronella cretacea sp. n. Cretaceous Madagascar, Canu Ann. Paléont. Paris 11 1922 p. 26 †Nematifera gen. n. type Elea reticulata Cretaceous Switzerland, CANU & BASSLER 13 p. 20.

†Nematopora gen. n. type ovata sp. n. Miocene France, Duvergier Act. soc. linn. 72 1920 p. 163.

Nematopora. Preoccupied by Nematopora, Ulrich, Amer. Geol. I 1888 p. 234.

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† Ogivalina mutabilis sp. n. Oligocene Central America, Canu & Bassler 12 p. 80.

†Oncousoecia accumulata sp. n. Jurassic Germany, Canu & Bassler Proc. U. S. Nat. Mus. 61 1922 p. 6.

† Pelmatopora larva sp. n. Cretaceous France, Lano Cat. Cretac. Bryozoa 1922 p. 260.

†Perigastrella crassilabiata p. 178, sine dorso p. 179, lata p. 180, spp. n., Miocene France, Duvergier Act. soc. linn. 72 1920.

†Peristomella laciniosa p. 171, costatula p. 172, spp. n., Miocene France, Duvergier Act. soc. linn. 72 1920.

†Phylactella fissurata p. 177, aquitanica p. 178, spp. n., Miocene France, Duvergier Act. soc. linn. 72 1920.

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†Platonea scalaria, hirsuta, spp. n., Tertiary Philippine I., Canu & Bassler 13 p. 49.

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†*Puellina longirostrata* sp. n. Cretaceous Madagascar, CANU Ann. Paléont. Paris 11 1922 p. 22.

†Reteporidea collardeti p. 132, subramosa p. 133, spp. n., Cretaceous France, Canu & Bassler 13.

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†Rhynchozoon vaughani sp. n. Miocene Santo Domingo, CANU & BASSLER 12 p. 94.

†Ripisoecia gen. n. type Millepora conifera Jurassic France, Canu & Bassler 13 p. 94.

†Sandalopora crepidata sp. n. Cretaceous England, LANG Cat. Cretac. Bryozoa 1922 p. 330.

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†Smittina triangularis sp. n. Miocene France, Duvergier Act. soc. linn, 72 1920 p. 175.

†Stathmepora gen. n. type flabellata sp. n. Pleistocene California, CANU & BASSLER 13 p. 39. †Steganoporella parvicella sp. n. Miocene West Indies, CANU & BASSLER 12 p. 89.

†Stephanollona gen. n. type spinifera sp. n. Miocene France, Duvergier Act. soc. linn. 72 1920 p. 169.

†Stichoporina tuberosa sp. n. Miocene West Indies, Canu & Bassler 12 p. 99.

†Streblotrypa merceri sp. n. Carboniferous Ohio, Morningstar Bull, Geol. Surv. Ohio ser. 4 25 1922 p. 164.

†Thalamoporella biperforata sp. n. Miocene West Indies, CANU & BASSLER 12 p. 88.

†Trematopora poctai sp. n. Silurian Bohemia, Kettner Bull. intern. Acad. François Joseph Prague 18 1913 p. 172.

†Tremoschizodina gen. n. type pisciformis sp. n. Miocene France, Duver-GIER Act, soc. linn, 72 1920 p. 176.

†Tretocycloecia sabaudica sp. n. Cretaceous? France, CANU & BASSLER 13 p. 110.

†Tricephalopora tripla p. 80, tripartita p. 81, spp. n., Rügen Cretaeeous, LANG Cat. Cretae. Bryozoa 1922.

†Trigonoecia gen. n. type Mesenteripora michelini p. 18, transversa sp. n. p. 19 Jurassic England, CANU & BASS-LER 13.

Triticella periphanta sp. n. Recent, MARCUS Videns Medd, Nat. For. 73. 1922 p. 116.

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VIII. MOLLUSCA

ARRANGED BY

II. B. PRESTON.

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Acrostoma with A. variabilis varr. n. laevis, semilaevigata, subspinata India, Annandale Rec. Ind. Mus. 22 pp. 559 562

†Alabina angustior sp. n. Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci. Philad. 73 p. 376.

Anniccla with A. judayi sp. n. Wisconsin, Baker Nautilus 35 p. 19.—A., Baker 42.—A., Wenz 644.

Amnicolidae, BAKER 36 p. 60.

Anculosa with A. clipeata, modesta, torrefacta, aldrichi, flexuosa, choccoloccoensis, brevispira, mimica, lirata, sulcata, spp. n., Alabama River Drainage, Goodrich Geol, Surv. Alabama Mus. Papr. 6 pp. 1-57.

†Bezanconia pupoidea sp. n. Quaternary Peru, Woods in Bosworth Geol. of Peru 1922 p. 89.

Bythinella brevis persuturata subsp. n. Pyrenees, Bofill & others Pub. Inst. Cienc. Barcelona 1920-1921 (Estudi sobre la malacologia de les Valls Pirenaiques pt. vi) pp. 1020-1213.—B., Germain 237.

†Bithinia [vide etiam Bithynia and Bythinia] gcustensis sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 120.

†Bithynia [vide etiam Bithynia and Bythinia] dunkeriana nom.n. for Paludina ovata Dunk. Wenz Nachrbl. D. Malak. Ges. 1919 p. 69.

†Bourquetia jacoti, escheri, spp. n., Mesozoic, Rollier Abh. Schw. Pal. Ges. 44 pp. 78-79.

†Brachycerithium majus, lacrymigerum, clycoidale, ornatissimum, dupliciornatum, pauciornatum, elegans, recticosta, minus, (?) seminudum, microstoma, intermedium, evolutum, carvajtensis gen. spp. & varr. n. Trias Argentina, Bonarelli An. Minist. Ag. Sci. Geol. Buenos Aires 15 pp. 72-73.

Bythinia [vide etiam Bithinia and Bithynia] leachi, Shep., ASTRE 28.—B., GERMAIN 237.—B., WEBER 636 p. 484.

†Bythinia gracilis subleachi var. n. Tertiary Germany, Gottschick Arch. Moll. Frankfurt 54 p. 109.

†Cerithiidae with Cerithium obesum ventricosior, o, harrisi varr, n. Tertiary Santo Domingo, Pilsbry Proc. Acad. Nat. Sci. Philad. 73 pp. 369-376,—C. with Cerithium (Vulgocerithium) provaricosum, C. (Ptychocerithium) sallomacense, bardiei, pseudo-crenatum, C. (Chondrocerithium) calculosumaequigraniferum, subrubiginosum; Rhinoclavis leognamensis, R. (Semivertagus) pupaeformis varr. Telescopium pseudoobeliscus var, spinatoconicum; Terebralia bidentatum var. percingulata: Pirenella inconstanz var, transiens; Bittium subgranosum var. evolutum varr. n. B. benoisti, asperula'um, canejanense; Semibiltium octoliratum duvergieri, pergranulosa, vasconiensis, spp. n.; Colinia bearnensis, degrangeri; Tenuicerithium imbricatarium; Hemicerithium vignali, stephanense; Potamides derelictus, persuturatus, benoisti ; Escoffieria ? degrangei, spp. & varr. n., Tympanotonus margaritaceus mut. n. bearnensis; Tertiary, COSSMANN & PEYROT Act. soc. linn, Bordeaux 73 pp. 181 291.

†Cerithiopsidae with C. vignali, merignacensis, sigmoidea, C. (Dizoniopsis) aquitaniensis; Newtoniella (?) degrangei; N. (Seila) cyrtogyra, cabanacensis; Laecocchlis? inopinata, spp. n., Tertiary Cossmann & Peyrot Act, soc. linn. Bordeaux 73 pp. 291–303.

Cerithiopsis dispar sp. n. Masatierra, Odhner Nat. hist. of Juan Fernandez 3 2 p. 223 figs.

†Cerithiopsis nodosocostatus, C. (Seila) trisulcatus, spp. n., Pleistocene, Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 73.—C. poisoti sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 100.

†Cerithium bodenbenderi sp. n. Lias Argentina, Behrendsen Act. Acad. Ci. Cordoba 7 pp. 168 222.—C. costaricensis sp. n. Miocene Costa Rica, Olsson Bul, Amer. Pal. 39 p. 143.— C. ferruginea, nigraquarum, dupasquieri, spp. n., Mesozoic, Rollier Abh. Schw. Pal. Ges. 44 pp. 86-89.—C. inaequicostatum sp. n. Cretaceous N. Zealand, WILCKENS Pal. Bul. Geol. Surv. N. Z. 9 p. 8.—C. infranodatum, grillanum, spp. n., Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol. 3 pp. 56-57. -C. paytense Tertiary; C. negritosense, chatwini Quaternary Peru, spp. n., Woods in Bosworth Geol. of Peru 1922 pp. 87-88.—C. (Gourmyia?) njalindungense, C. (Vertagus) merangianum, C. (V.?) augsananum, spp. n., Java, Martin Samml. Geol. Reichsmus. Leiden 1 Abt 2 Heft 3 1921 pp. 469-470: C. (Hemicerithium) hillegondae sp. n. Java op. cit. Heft 4 1922 p. 471.—C. (Tiaracerithium) vasseuri sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 92.—C. ? ammonianum, quinquecinctum, spp. n., Lias, Germany, SCHNITTMANN Zs. D. geol. Ges. Berlin 74 p. 24.

†Clavoczrithium gen. n. [Cerithiidae] Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 94.

†Diastoma americanum sp. n. Quaternary, Woods in Bosworth Geol. of Peru 1922 p. 92.

†Diastomidae with Diastoma ultimum sp. n. Tertiary, Cossmann & Peyrot Act. soc. linn. Bordeaux 73 pp. 313-317.

Digoniostoma with D. textum sp. n. Manipur, Annandale Rec. Ind. Mus. 22 pp. 340-343.

Digyreidum bourguignati, Pal., ASTRE 28.

†Dinocochlea injen; gen. & sp. n. Lower Cretaceous England Woodward Geol. Mag. 59 pp. 242-247.

†Exzchistoma cossmanni sp. n. Eccene Nigeria, Newton Geol, Surv. Nigeria 3 p. 45.

† Farinus (?) legunitensis sp. n. Tertiary Peru, Woods in Bosworth Geol. of Peru 1922 p. 86.

Fenella, DALL 163.

†Gonioconcha striata, striato-spinata, spinata and var. brachyspira, nodosa and var., evolutior, gen. spp. & varr. n., Trais, Argentina, Bonarelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 72.

†Hydrobia calderoni, romani, spp. n., Miocene, Spain, Goméz Mem. Com. Inv. Pal. Madrid 30 pp. 104-105.—H. dalli nom. n. Tertiary, Wenz Senckenbergiana Frankfurt a. M. 4 p. 6.—H. serresi nom. n. for Paludina affinis, Serres; H. brusinii nom. n. for H.? incerta, Brus.; H. hermitei nom. n. for H. (Paludestrina) tournoueri, Herm., Wenz Nachrbl. D. Malak. Ges. 1919 p. 72.

Hydrobiidae, Annandale 13 p. 134.

†Hypsipleura? alta, angulicosta, binotata, spp. n., Trias Argentina, Bonarelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 71.

† Katosia with K. zygopleuroides and var. elatior, K. ccmmunis, rapidecrescens, concoidea, pseudovetusta, recticosta, carvajalensis, baculoides, clathrata, brachyspira, obliquecosta, var. & spp. n., Trias, Argentina, Bonarelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 71.

†Loxonema polycona sp. n. Devon Germany, Spriestersbach Jahrb, geol. Landesanst. 38 T. 1 p. 510.

†? Macrochilina rhenana sp. n. Devon Germany, Spriestersbach Jahrb. geol, Landesanst. 38 T. 1 p. 507.—M. Kirohner 241 pp. 240-245.

† Melanatria dimorphica sp. n. Quaternary Peru, Woods in Bosworth Geol. of Peru 1922 p. 83.

† Melanellidae, Pilsbry 473 p. 394.

Melania persculpta sp. n. Burma, EHRMANN SitzBer. natf. Ges. 45-48 p. 18.

Melaniidae, Annandale 13 p. 135.

† Melaniidaz, Pilsbry 473 p. 379.

Melanoides with M. sluiteri sp. n. Sumatra, Prashad Rec. Ind. Mus. 22 pp. 489-493.

Melanopsis, GERMAIN 237.

† Melanopsis pallaryi nom. n. for M. (M.) acuminata, Pallary; M. albasensis nom. n. for M. (Canthidomus) nodosa, Don.; M. tinnyensis nom. n. for M. sinzowi, Lör, Wenz Nachrbl. D. Malak. Ges. 1919 p. 73.—M. (Lyrcea) pachecoi sp. n. Miocene Spain, Goméz Mem. Com. Inv. Pal. Madrid 30 p. 108.

†Micromelania graeca nom. n. for Melania elegans, Fuchs, Wenz Nachrbl. D. Malak. Ges. 1919 p. 73.

†Modulidae, Cossmann & Peyrot 150 p. 319.—M., Pilsbry 473.

† Morgania magna Tertiary; M. costata Quaternary Peru, spp. n., Woods in Bosworth Geol. of Peru 1922 pp. 8283.

Paludestrina ccnfusa, Oldham 447.— P. jenkinsi, Bacchus 32.—P. j., Christy 118.—P. ventrosa, Robson 522.

Paludomus pustulosa sp. n. Manipur, Annandale Rec. Ind. Mus. 22 p. 563.

†Pirenella confusa sp. n. Eccene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 99.

Pleuroceridae, BAKER 36 p. 59.

†Potamides occidentalis sp. n. Quaternary Peru, Woods in Bosworth Geol. of Peru 1922 p. 90.—P. ormzi var. n. infraliratus Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol. 3 p. 58.—P. with P. praecinctus mut. n. ultracinctus sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 pp. 95–97.—P. (Tympanotonus) merangianus, P. (Terebralia) augsananus, spp. n., Tertiary, Martin Samml. geol. Reichsmus 1 pp. 472–473.

†Procerithium (Rhabdocolpus) gentili sp. n. Lias Morocco, Cossmann & Abrard Bul, soc. géol. Paris 21 p. 158.

†Protofusus saltensis, andinus, convexigyrus, gen. & spp. n., Trias, Argentina, Bonarelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 73.

†Pseudamnicola ultramontana nom. n. for Hydrobia (Paludina) immutata, Cap., Wenz Nachrbl. D. Malak. Ges. 1919 p. 74.

† Pyrgula capellinii nom. n. for Hydrobia incerta, Cap., Wenz Nachrbl. D. Malak, Ges. 1919 p. 75. †Rhabdoconcha (?) dubia, subcontracta, spp. n., Trias Argentina, Bonarelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 71.

†Siliquaria modesta Dall var. n. limonensis Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 147.

†Spirostylus elegans sp. n. Trias Argentina, Bonarelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 71.

†Stephanocosmia disputabilis, tyrscecina, frecuens, micracantha, spp. n., Trias Argentina, Bonarelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 71.

†Telescopium peruvianum sp. n. Tertiary, Woods in Bosworth Geol. of Peru 1922 p. 91.

†Teliostoma abrardi sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 98.

†Tenagodes with T. anguinus mut. n. miocaenicus Tertiary, Cossmann & Peyrot Act. soc. linn. Bordeaux 73 pp. 88-91.

Tiara tuberculata, CAWSTON 104.

Trifora [vide etiam Triforis and Triphora] basalis sp. n. Masatierra, ODHNER Nat. hist. of Juan Fernandez 3 2 p. 223 figs.

†Triforidae with Triforis raulini, T. (Epetrium) peyreirensis, spp. n., T. adversa mut. n. miocaenica, T. papaveracea var. n. inflexicosta Tertiary, Cossmann & Peyrot Act. soc. linn. Bordeaux 73 pp. 303-313.

†Triforis [vide etiam Trifora and Triphora] multigyrata sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 74.

†Triphora [vide etiam Trifora and Triforis] (Ogivia) gymna sp. n. Eccene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 102.

†Triphoridae [vide etiam Triforidae] Pilsbry 473 p. 369.

†Tympanotonus lagunitensis sp. n. Tertiary, Woods in Bosworth Geol. of Peru 1922 p. 90.

†Tyrsoecus andinus, monoliformis, perarmatus, spp. n., Trias, Argentina, Bonarelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 71.

† Vermetidae, PILSBRY 473, p. 376.

†Vermetus with V. benoisti, leognanensis, linderi, spp. n., V. (Petaloconchus) intortus var. n. colligata; V. (Bivonia) sacyi, V. (Elliptovermetus) breigneti, spp. n., V. (Burtinella) c. f. semisurrectus Biv. mut. antecedens, V. (Lemintina) arenarius L. mut. pseudodentifer and arcusferens mutt. n.; V. (Spiroglyphus?) desmoulinsi sp. n. Tertiary, Cossmann & Peyrot Act. soc. linn. Bordeaux 73 pp. 68-85.—V. (Lemintina) echinulatus sp. n. Eocene France, Cossmann Bull. soc. sci. nat. Nantes 5 p. 103.

†Vermicularia, Cossmann & Peyrot 150 p. 86

†Zygopleura cossmanni sp. n. Lias Indo-China, Mansuy Mém. serv. géol. Indochine 6 p. 19.—Z. with Z. turgida, paucinodosa, spinicosta, multicosta, pustulosa, maimarensis, argentina, spp. n., Trias Argentina, Bonarelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 70.

CAECIDÆ, TURRITELLIDÆ, STRUTHIO-LARIIDÆ, CHENOPIDÆ, STROMBIDÆ, XENOPHORIDÆ,

†Alaria acute-carinata Jura; A. acuta Cretaceous, spp. n., Argentina Behren-DSEN Act. Acad. Ci. Cordoba 7 p. 192.

†Arrhoges haastianus sp. n. Cretaceous N. Zealand, WILCKENS Pal. Bul. Geol. Surv. N.Z. 9 p. 9.—A. (Pseudodiartema) palmata gen. & sp. n. Lower Cretaceous France, GILLET Bul. soc. géol. Paris 21 p. 28.

†Caecidae, Pilsbry 473 p. 378.

†Caecum, Cossmann & Peyrot 150 p. 65.

†Chenopus, BEHRENDSEN 49 p. 168.

†Dicroloma with D. (Anchiura) longiscata, Buv. mut. n. wassyensis Barremian France, Gillet Bul. soc. géol. Paris 21 p. 30.—D. (Pietteia) huguenini sp. n. Lias France, Riche & Roman Trav. Lab. géol. Lyon 1 p. 96.

†Harpagodes magnificus, heimi, spp. n., Mesozoic, Rollier Abh. Schw. Pal. Ges. 44 pp. 90-92.

Mathilda [vide etiam Mathildia] brevicula sp. n. Loyalty Isds., BAVAY J. conchyliol. Paris 67 p. 65.

† Mathildia [vide etiam Mathilda] njalindungensis sp. n. Tertiary, MARTIN Samml, geol. Reichsmus. 1 p. 474.—M. peyroti sp. n. Tertiary, Cossmann & Peyrot Act. soc. linn. Bordeaux 73 p. 177.

†Mesalia, Cossmann & Peyrot 150 p. 64.

†Orthaulax inornatus altilis subsp. n. Tertiary Santo Domingo, Phsbry Proc. Acad. Nat. Sci. Philad. 73 p. 369.

†Perissoptera waiparaensis, novoseelandica, spp. n., Cretaceous, N. Zealand, WILCKENS Pal. Bul. Geol. Surv. N.Z. 9 pp. 11-13.

†Protoma with P. quadriplicata mut. n. inaequiplicata; P. vasconiensis, densecingulata, spp. n., Tertiary, Cossmann & Peyrot Act. soc. linn. Bordeaux 73 pp. 52-64.

†Pseudophorus, Kirchner 341 p. 235.

†Rimella (Dientomochilus) promensis sp. n. Tertiary Burma, VREDENBURG Rec. geol. Surv. Ind. 51 p. 291.

†Rostellaria bidigitata, unidigitata, spp. n., Eocene, Nigeria, Newton Geol. Surv. Nigeria 3 pp. 12-14.

†Semiterebellum suturocostatum, elongatum, spp. n., Eocene, Nigeria, NEW-TON Geol. Surv. Nigeria 3 pp. 15-17.

†Strombidae, Pilsbry 473 p. 366.

†Struthiolariopsis similis sp. n. Cretaceous N. Zealand, WILCKENS Pal. Bul. Geol. Surv. N. Z. 9 p. 17.

Turritella, Peile 465.

†Turritella altilira varr. chiriquiensis, costaricensis, T. exoleta var. limonensis, T. oreodoxa varr. & sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal 39 pp. 150-152.—T. alturana nom. n. for T. plana, Nils.; T. filicincta var. varicosta, inca var. trita varr. n.; T. nelsoni nom. n. for T. suturalis, Nols.; T. nelsoni var. trullissatia, infracarinata var. zorritensis varr. n.; T. prenuncia sp. n.; T. robusta var. n. abrupta; T. charama sp. n., SPIEKER Tertiary Peru Johns Hopkins Univ. Stud. Geol. 3 pp. 62-86.-T. bantamensis var. n. producta sp. n. Tertiary, MARTIN Samml, geol, Reichsmus. 1 p. 474.—T. graysonensis, worthensis, spp. n., Cretaceous U.S.A., ADKINS Univ. Texas Bul. 1856 pp. 140-142.—T. halensis var. [? n.] alpha Oligocene Porto Rico MITCHELL Sci. Surv. Porto Rico 1 p. 285.—T. mauryana sp. n. Eocene Nigeria, NEWTON Geol. Surv. Nigeria 3 p. 48.—T. negritosensis, lissoni, dickersoni, bosworthi, douvillei,

enceps, annectens, spp. n., Quaternary Peru, Woods in Bosworth Geol. of Peru 1922 pp. 78-81.—T. noetlingi sp. n. Tertiary Burma, VREDENBURG Rec. geol, Surv. Ind. 51 p. 292.-T. pinfoldi sp. n. Tertiary India, VREDENBURG Rec. Geol. Surv. Ind. 51 p. 313.—T. solitaria sp. n. Cretaceous N. Zealand, WILCKENS Pal. Bul. Geol. Surv. N. Z. 9 p. 35.— T. with T. terebralis varr. n. grata, aquensis; T. t. mut. n. aturensis; T. pseudogradata, cestasensis, stephanensis and var. venusta, spp. & var. n.; T. (Zaria) aquitaniensis nom. emend.; T. (Z.) secans, raulini, falaciosa, T. (Archimediella) bearnensis, vasconiensis and var. terebriformis, pythagoraica Hil. var. degrangei; T. (Haustator) syrtica, peyrerensis, touzini, benoisti, spp. & varr. n.; T. (Peyrotia) strangulata mut. n. grossa, Tertiary, France, Cossmann & Peyrot Act. soc. linn. Bordeaux 73 pp. 5-52.— T. Behrendsen 49 p. 198.

†Turritellidae, Pilsbry 473 p. 377.

†Tugurium nigeriense sp. n. Eocene Nigeria, Newton Geol, Surv. Nigeria 3 p. 51.

†Xenophoridae, Pilsbry 473 p. 385.

CAPULIDÆ, HIPPONYCIDÆ, CALYPTRAEIDÆ, NARICIDÆ, NATICIDÆ, LAMELLARIIDÆ,

†Amauropsis burnsii meridionalis subsp. n. Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci. Philad. 73 p. 387.—A. (?) andina sp. n. Trias Argentina, Bonakelli An. Minist. Ag. Sec. Geol. Buenos Aires 15 p. 73.

†Ampullina, colossea, A. (Euspira) montmollini, spp. n., Mesozoic, Rollier Abh. Schw. Pal. Ges. 44 pp. 75-77.

†Calyptraea solitaria sp. n. Cretaceous N. Zealand, WILCKENS Pal. Bul. Geol. Surv. N.Z. 9 p. 6.

 $\dagger {\it Calyptraeidae}, \, {\rm Pilsbry} \,\, 473 \,\, {\rm p.} \,\, 385.$

†Capulidae, Pilsbry 473 p. 384.

Crepidula fornicata, Belcher 50.— C. fornicata, Orton 453 & 454.

†Crepidula falconeri sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 58.—C. hochstetteriana sp. n. Cretaceous N. Zealand, WILCKENS Pal. Bul. Geol. Surv. N. Z. 9 p. 5.

†Crepitacella limonensis sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 143. †Diaphorostoma, Reed 503 p. 307.

†Hipponicidae, Pilsbry 473 p. 384.

†Hipponyx digitata sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 121.

†Lunatia humilis, bulbosa, spp. n., Devon, Germany, Spriestersbach Jahrb. geol. Landesanst. 38 T. 1 pp. 305-306.

† Megatylotus bourcarti sp. n. Oligocene Albania, Cossmann & Bourcart Bul. soc. géol. Paris 21 p. 168.

†Natica gastelumend:i sp. n. Cretaceous Berry & Stingewald Johns Hopkins Univ. Stud. Geol. 2 p. 86.

—N. selwyniana, ingrata, spp. n. Cretaceous N. Zealand, Wilchens Pal. Bul. Geol. Surv. N. Z. 9 p. 6.—N. youngi Maury var. n. cocleana Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 155.—N. with N. bodenbenderi sp. n. Jura Argentina, Behrendsen Act. Acad. Ci. Cordoba 7 pp. 196 208.

†Naticidae, Pilsbry 473 p. 386.

†Platyceras dorsicarina, paulospirale, distortum, loranum, eegense, spp. n., Devon, Germany, Fuchs Abh. geol. Landesanst. 79 pp. 64-69.—P., Reed 506 p. 308.—P., Yakowley 660.

†Platyostoma, Kirchner 341 p. 240.

Polinices [vide etiam Polynices], COPE-LAND 144.

†Polynices [vide etiam Polinices] porcana sp. n. Tertiary Peru, SPIEKER Johns Hopkins Univ. Stud. Geol. 3 p.

†Sinum africanum sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 57.—S. carolanum sp. n. Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol. 3 p. 89.

†Tylostoma, Behrendsen 49 p. 198.

†Zinolia speciosa gen. & sp. n. Pliocene Italy, ISSEL Atti soc. lig. Genova 1 p. 122.

TRICHOTROPIDÆ, JANTHINIDÆ, CYPRAEIDÆ, CYMATIIDÆ, CASSIDIDÆ, TONNIDÆ, CANCELLARIIDÆ.

†Amphiperas nigeriensis sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 18.

†Bursa crassa proavus subsp. n. Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci. Philad. 73 p. 360.

†Cassidaria echinophora var. n. promensis Tertiary Burma, VREDENBURG Rec. Geol. Surv. Ind. 51 p. 290.

†Cassidea birmanica sp. n. Tertiary Burma, VREDENBURG Rec. geol. Surv. Ind. 51 p. 290.

†Cassididae, Pilsbry 473 p. 360.

†Cymatiidae, Pilsbry 473 p. 356.

Cypraea with C. dillwyni nom. n. for C. margarita, Gray; C. liliputana nom. n. for T[rivia] scabriuscula, Koenen; C. massauznsis nom. n. for C. gemmula, Weink, SCHILDER Proc. Malac. Soc. 15 pp. 98-122.—C. pacifica, Button 97.

†Cypraea angustirima sp. n. Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol. 3 p. 55.—C. parisimina, almirantensis, spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 139–140.—C. siphonata sp. n. Tertiary, Chapman Proc. R. Soc. Vict. 35 p. 12.—C. (Bernuyia) singuensis, C. (Cypraeotrivia) oppenheimi, spp. n., Tertiary, Burma, Vredenburg Rec. geol. Surv. Ind. 51 p. 291.—C., Schilder 537.

†Cypraeidae with Cypraea raymondrobertsi, campbelliana, spp. n., Tertiary Santo Domingo, Pilsbry Proc. Acad. Nat. Sci. Philad. 73 pp. 364-366.

†Doliidae, Pilsbry 473 p. 363.

† Erato obesula sp. n. Tertiary, Charman Proc. R. Soc. Vict. 35 p. 12.

†Eutritonium (Colubraria) augsananum, E. (Lampusia) njalindungense, spp. n., Tertiary, Martin Samml. geol. Reichsmus. 1 p. 467.

†Hilda turriculata sp. n. Eocene Nigeria, Newton Geol, Surv. Nigeria 3 p. 29.

†Ranella antiqua, R. (Pseudobursa) promensis, spp. n., Tertiary, Burma, VREDENBURG Rec. geol. Surv. Ind. 51 p. 289.

†Sconsia laevigata, Sow. var. gabbi, S. bocasensis, cocleana, spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 136-118.

Triton with T. (Cumia) var. n. biplex Sicily, Coen Riv. ital. paleont. 28 pp. 21-23.

Trivia with T. antillarum nom. n. for T. subrostrata, Gray; T. nix nom. n. for T. nivea, Sow; T. occidentalis nom. n. for T. pulla, Gask, Schilder Proc. Malac. Soc. 15 pp. 98-122.

†Trivia noellingi sp. n. Tertiary Burma, VREDENBURG Rec. geol. Surv. Ind. 51 p. 291.—T., SCHILDER 537.

†*Uxia bruxelliensis* sp. n. Eocene Belgium, Lériche Bul. Soc. Geol. Belge 31 p. 184.

SOLARIIDAE, SCALARIIDÆ.

†Acrilla (Littoriniscala) nerviensis sp. n. Eocene Belgium, LÉRICHE Bul, soc. géol. Belge 31 p. 193.

†Architectonicidae, Pilsbry 473 p. 379.

†Colpomphalus abrardi sp. n. Lias Morocco, Cossmann & Abrard Bul. soc. géol. Paris 21 p. 156.

†Discohelix crussoliensis, D. (Colpomphalus) bathmis, spp. n., Lias, France, Riche & Roman Trav. Lab. géol. Lyon 1 pp. 102-104.—D. dissymetrica sp. n. Lower Cretaceous France, Gillet Bul. soc. géol. Paris 21 p. 27.

†Epitoniidae with Epitonium santodominganum, amosbrowni, spp. n., Tertiary, Santo Domingo, PILSBRY Proc. Acad. Nat. Sci. Philad. 73 pp. 387-389.

†Euomphalus calliferus sp. n. Devon Germany, Spriestersbach Jahrb. geol. Landesanst. 38 T. 1 p. 499.—E. with E. altus, basinodosus, spp. n., Devon, Germany, Kirchner Verh. nat. hist. Ver. Bonn 71 pp. 314-227.

†Platychisma allandalensis sp. n. Permo-carboniferous New South Wales, MITCHELL Proc. Linn, Soc. N. S. Wales 47 p. 278.

†Scala (Hyaloscala) minuta var. n. gigantea Tertiary Gripp Zs. D. geol. Ges. Abh. Berlin 74 p. 188.

Scalaria (Clathrus) juanina sp. n. Masatierra, Odhner Nat. hist. of Juan Fernandez 3 2 p. 224 fig.

†Scalaria azumana, kazusensis, yama-kawai, conjuncta, subfrondicula, picturata spp. n., Pleistocene, Japan, Yokoyama J. Coll. Sci. Tokyo 44 pp. 86–89.—S. (Cirsotrema?) pacifica sp. n. Cretaceous N. Zealand, Wilckens Pal. Bul. Geol. Surv. N. Z. 9 p. 8.—S. (Hirtoscala)-elegans Ris. var. n. duplex Pliocene San Marino, Nelli Scritt. var. Geog. Geol. 1922 p. 102.

†Scalidae with Nobiliscala remota; Clathrus neuvillei, neptunei; Fuscoscala thevenini, castor, pollux, inconsiderata, imputata, abietorum, recessa, dubaleni,

incredulis, imperita; Eburniscala leognanensis; Avalitiscala stupefacta; Foveoscala recidiva; Hirtoscala sacyi, spp. n., Lepidoscala subgen. n. with L. biali and varr. intangibilis and recollecta sp. & varr. n.; Linctoscala burdigalensis; Hyaloscala micans; Mirilliscala superlativa, illuminata; Spiniscala merignacensis var. polycolpata; S. touzini, perfragilis, trivialis, orthezensis, constituta, banoni var. unctai Gyroscala neovasconiensis, despecta, suavis; Circuloscala indubitata; Acrilla vignali, silentiosa; Dentiscala rozieri, spp. & varr. n., Tertiary, Cossmann & Peyrot Act. soc. linn, Bordeaux 73 pp. 91-177.

†Solarium augsananum sp. n. Tertiary, Martin Samml, gool, Reichsmus. 1 p. 475.—S. nelsoni sp. n. Quaternary Peru, Woods in Bosworth Geol. of Peru 1922 p. 76.

†Stellaxis bicingulata sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 52.

†Straparollus wachtbergi, lithoides, minimus, spp. n., Devon, Germany, KIRCHNER Verh, nat, hist, Ver. Bonn 71 pp. 212-213.

†Subulicala [? Subuliscala] wolfliana sp. n. Tertiary, GRIPP Zs. D. geol. ges. Abh. Berlin 74 p. 184.

†Torinia elegantula sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 78.

PYRAMIDELLIDÆ, STROMBIFORMIDÆ.

†Anisocycla allixi sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 126.

† Euchrysalis, Kirchner 341 p. 255.

†Eulima (Leiostraca) unicincta, tokunagei, glabroides, krishna, spp. n., Pleistocene, Japan, Yokoyama J. Coll. Sci. Tokyo 44 pp. 89-91.

†Holopella, Kirchner 341 p. 254.

†Loxonema with L. incurvilineatum, paucicostatum arduum, retrostriatum, carinatum and c. var. sulcata, spiraglobosum, paludinoides, ginzenbergensis, spp. & var. n., Devon, Germany, Kirch-Ner Verh. nat. hist. Ver. Bonn 71 pp. 246-254.

Menestho, Bartsch 46.

† † Odontostomia (Nisostoma) moguntensis sp. n. Stampian, Cossmann Essais pal. comp. Paris 1921 p. 325. † Odostomia (Odostomida) mogindo sp.
n. Tertiary Santo Domingo, PILSBRY
Proc. Acad. Nat. Sci. Philad. 73 p. 393.
—O. (Odostomia) gordonis, shimosensis,
kizadiensis, venusta, toneana, suboxia,
O. (Odetta) neofelix, O. (Egilina) marielloides, spp. n., Pleistocene Japan, YOKOYAMA J. Coll. Sci. Tokyo 44 pp. 95-100.

Pyramidella insularum nom, n, for P. canaliculata Sow. Pilsbry Proc. Acad. Nat. Sci. Philad. 73 p. 307.

†Pyramidella ameghinoi, depontaillieri, spp. n., Astian, Cossmann Essais pal. comp. Paris 1921 pp. 323 324.—P. (Agatha) virgo (Ads.) var. brevis, P. (Iphiana) mira, siva var. & spp. n., Pleistocene, Japan, Yokoyama J. Coll. Sci. Tokyo 44 pp. 92-94.

Pyramidellidae, Christensen 117 pp. 97-98.

†Pyramidellidae, Pilsbry 473 p. 389.

†Syrnola (Pachysyrnola) faurai sp. n. Pliocene Catalonia, Cossmann Essais pal. comp. Paris 1921 p. 325.—S. (Puposyrnola) pliocaenica sp. n. Tertiary, Cossmann Essais pal. comp. Paris 1921 p. 325.

†Turbonilla (Ptycheulimella) misella, T. (Chemnitzia) imbana, kidoensis, teganumana, sematana, T. (Mormula?) scrobiculata, T. (Pyrgolampros) planicostata, T. (Strioturbonilla) sagamiana, pacifica, T. (Careliopsis?) obscura, angulifera, spp. n., Pleistocene, Japan, Yokoyama J. Coll. Sci. Tokyo 44 pp. 100–106.

ATLANTIDAE.

†Atlantidae, Pilsbry 473 p. 314.

STENOGLOSSA.

TURBINELLIDÆ, FASCIOLARIIDÆ, MITRIDÆ,

Aptyxis, Coen 125.

†Bulbifusus nigeriensis sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 35.

†Clavilithes costarius var. n. gronnieri Eocene Belgium, Lériche Bul. soc. géol. Belge 31 p. 189.—C. harrisi, peruvianus, pacificus, incertus, spp. n., Quaternary, Woods in Bosworth Geol. of Peru 1922 pp. 97-100.

†Cryptorhytis vulnerata sp. n. Cretaceous N. Zealand, WILCKENS Pal, Bul, Geol. Surv. N. Z. 9 p. 21.

Cylindra, Peile 464.

† Fasciolaria macdonaldi sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 106.

† Fasciolariidae, Pilsbry 473 p. 345.

† Fusinus youngi sp. n. Tertiary, CHAPMAN Proc. R. Soc. Vict. 35 p. 14.

Fusus, Bartsch 46.

†Fusus augsanana sp. n. Tertiary, MARTIN Samml. geol. Reichsmus 1 p. 454.—F. eximius var. stolleyana var. n. Tertiary, GRIPP Zs. D. geol. Ges. Abh. Berlin 74 p. 188.—F. miocosmius, honensis, spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 103-104.

†Lathyrus [vide etiam Latirus] indicus sp. n. Tertiary Burma, VREDENBURG Rec. geol. Surv. Ind. 51 p. 287.—L njalindungensis, L. (Ascolathyrus) augsananus, L. (Peristernia) beberianus, merangianus, spp. n., Tertiary, Martin Samml, geol. Reichsmus 1 pp. 455–457.—L. (Lathyrulus) bourdoti sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 74.

†Latirus [vide etiam Lathyrus] brevicaudatus santodomingensis subsp. n. Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci. Philad. 73 p. 345.—L. irazu, taurus, spp. n., Miocene, Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 107-108.

†Lirofusus inopinatus sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 75.

† Melongena (Pugilina) praeponderosa sp. n. Tertiary Burma, VREDENBURG Rec. geol. Surv. Ind. 51 p. 287.

Mitra, Peile 464.

† Mitra hondana, pirula, spp. n., Pleistocene, Japan, Yokoyama J. Coll. Sci. Tokyo 44 pp. 50–51.—M. swainsoni var. limonensis, M. poas, M. almagrensis, Toula var. coralliophila varr. & sp. n. Miocene, Olsson Costa Rica Bul. Amer Pal. 39 pp. 100–103.—M. (Cancilla) augsanana sp. n. Tertiary, Martin Samml. geol. Reichsmus 1 p. 453.

†Mitridae, Pilsbry 473 p. 339.

†Neptunea, ØYEN 456.

†Parvisipho (Columbellisipho) conjunctispira sp. n. Eocene France, Coss-MANN Bul, soc. sci. nat. Nantes 5 p. 79. †Pirula [vide etiam Pyrula] condita var. n. sinjuensis and P. promensis sp. n. Tertiary Burma, VREDENBURG Rec. geol. Surv. Ind. 51 pp. 290-291.

†Pyrula [vide etiam Pirula] peruviana sp. n. Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol 3 p. 54.

Pusia, Peile 464.

†Rhopalithes africanus sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 32.

†Sipho (Parasipho) nipponicus sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 55.

†Siphonalia dumasi sp. n. and S. chaussyensis race n. paucicostulata Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 76.—S. (Kelletia) iravadica sp. n. Tertiary Burma, VREDENBURG Rec. Geol. Surv. Ind. 51 p. 287.—S. (Kelletia) subspadicea sp. n. Tertiary India, VREDENBURG Rec. Geol. Surv. Ind. 51 p. 310.—S. (Pseudoneptunea) njalindungensis sp. n. Tertiary, MARTIN Samml. geol. Reichsmus 1 p. 458.

†Solutofusus curlewisensis sp. n. Tertiary, Chapman Proc. R. Soc. Vict. 35 p. 14.

†Streptochetus pallaryi sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 73.

†Streptolathyrus? subangulatus sp. n. Eccene France, Cossmann Bull. soc. sci. nat. Nantes 5 p. 72.

†Strepsidura pacifica sp. n. Quaternary Woods in Bosworth Geol. of Peru 1922 p. 96.—S. spirata sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 33.

†Sycum americanum sp. n. Peru, Woods in Bosworth Geol. of Peru 1922 p. 101.

Trophon, BARTSCH 46.

†Tudicula alta sp. n. Cretaceous N. Zealand, Wilckens Pal. Bul. Geol. Surv. N. Z. 9 p. 20.

Vexillum, Peile 464.

†Volutospina peruviana, crassiuscula, meridionalis, spp. n., Quaternary, Woods in Bosworth Geol. of Peru 1922 pp. 101-105.

†Xancidae, Pilsbry 473 p. 342.

†Xancus scopulus sp.n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 111. Buccinidæ, Nassaridæ, Muricidæ, Purpuridæ, Halidæ, Cancellaridæ, Pyrenidæ, Thaididæ.

†Alectrion ranuncula, merenda, spp. n., Miocene, Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 123-124.

Babelomurex sec. n. type Pseudomurex babelis, Req., Coen Atti Soc. ital. sc. nat. 61 p. 68.

†Buccinidae, Pilsbry 473 p. 348.

†Buccinorbis kitsoni sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 37.

Buccinum unda'um, Johnstone p. 43 325.

†Buccinum, ØYEN 456.

†Cancellaria multiplicis sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 42.—C. torquayensis sp. n. Tertiary, Chapman Proc. R. Soc. Vict. 35 p. 16.—C. with C. cossmanni, mauryae, toroensis, plummeri, spp. n., Olsson Bul. Amer. Pal. 39 pp. 80-85.

†Cancellariidae with Cancellaria ellipsis sp. n. Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci. Philad. 73 pp. 332-334.

Columbella (Mitrella) lignaria sp. n. Masatierra, Odhner Nat. hist. of Juan Fernandez 3 2 p. 224 fig.

†Columbella submercatoria sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 125.—C. (Alia) augsanana, preangerensis, merangiana, njalindungensis, spp. n., Tertiary, Martin Samml. geol. Reichsmus. 1 pp. 462-464.—C. (Atilia) smithi turriculata, praecursor, masakadoi, spp. n., Pleistocene, Japan, Yokoyama J. Coll. Sci. Tokyo 44 pp. 60-62.

†Columbellidae, Pilsbry 473 p. 350.

†Cominella douvillei sp. n. Eocene Nigeria, Newton Geol, Surv. Nigeria 3 p. 39.

†Coralliophaga peyroti sp. n. Eocene, COSSMANN Mém. soc. géol. Paris 23 & 24 Mém. 55 p. 68.

†Coralliophila augsanana sp. n. Tertiary, Martin Samml, geol. Reichsmus. 1 p. 466.

†Cyllene augsanana sp. n. Tertiary, Martin Samml. geol. Reichsmus. 1 p. 459. †Cymia hanakani tectiformis subsp. n. Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci. Philad. 73 p. 355.

†Dorsanum de gasperii sp. n. Pliocene San Marino, Nelli Scritt, var. geog, geol. 1922 p. 107.

Fusomurex sec. n. type Pseudomurex alucoides, De. Blainv., Coen Atti Soc. ital. sc.nat. 61 p. 69.

† Halia americana sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 79.

†Hindsia birmanica sp. n. Tertiary Burma, VREDENBURG Rec. geol. Surv. Ind. 51 p. 289.

Hirtomurex sec. n. type Pseudomurex lamellosus, Phil., Coen Atti Soc. ital. sc. nat. 61 p. 69.

†Janiopsis nigeriensis sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 41.

Latiromurex sec. n. type Pseudomurex meyendorffi, Calc., Coen Atti Soc. ital. sc. nat. 61 p. 70.

Lepadomurex subgen. n. (L. brevis, de Blainv), Coen Atti Soc. ital. sc. nat. 61 p. 70.

†Liomesus africanus sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 38.

† Metula harrisi and var. limonensis sp. & var. n. Miocene Costa Rica, OLSSON Bul. Amer. Pal. 39 p. 116.—M. (Celatoconus) siphooides sp. n. Eocene France, COSSMANN Bul. soc. sci. nat. Nantes 5 p. 79.

†Murex iravadicus and var. yenunensis sp. & var. n. Tertiary Burma, VREDENBURG Rec. Geol. Surv. Ind. 51 p. 288.—M. laqueoratus sp. n. Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol. 3 p. 51.—M. (Favartia) gouetensis sp. n. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 82.—M. (Muricidea) gatliffi sp. n. Tertiary, Chapman Proc. R. Soc. Vict. 35 p. 13.—M. (Muricopsis) merangianus sp. n. Tertiary, Martin Samml. geol. Reichsmus. 1 p. 465.

†Muricidae, Pilsbry 473 p. 352.

† Nassa lagunitensis sp. n. Tertiary, Woods in Bosworth Geol. of Peru 1922 p. 95.—N. (Hinia) reticulala L. var, titanensis, N. (Niotha) schönni Hör. and Auing. var. manzonii varr. n. Tertiary San Marino, NELLI Scritt. var. Geog. Geol. 1922 pp. 111-112.—N. (Niotha) augsanana, talahabensis, spp. n., Tertiary, Martin Samml. geol. Reichsmus. 1 pp. 461-462.

Neptunea, DALL 162.—N., IREDALE 309.

†Northia northiae Gray var. n. miocenica Miocene Costa Rica., Olsson Bul. Amer. Pal. 39 p. 124.

† Ocinebra spectata sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 65.

†Peristernia insula, tortugera, spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 100.

†Phos moorei, Gup. var. costaricensis, elegans, Gup. var. limonensis, P. estrellensis, veatchi, beteyensis, var. & spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 118-122.—P. (?) latirugatus sp. n. Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol. 3 p. 46.

†Preangeria gen. n.with P. augsanana, talahabiensis, spp. n. Java, spp. n. Tertiary, Martin Samml. Geol. Reichsmus. 1 pp. 450-451.

†Procancellaria parkiana gen. & sp. n. Cretaceous N. Zealand WILCKENS Pal. Bul. Geol. Surv. N.Z. 9, p. 21.

† Pseudoliva parinasensis, mutabilis, spp. n., Quaternary, Woods in Bosworth Geol, of Peru 1922 pp. 93-94.

†Ptychosalpinx (?) dentalis sp. n.. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 109.

†Ricinula (Morula) augsanana sp. n. Tertiary, Martin Samml. Geol. Reichsmus. 1 p. 466.

†Strombina caribaea micra var. n. Tertiary Santo Domingo, PILSBRY. Proc. Acad. Nat. Sci. Philad. 73 p. 351

—S.: materna, cricamola, costaricensis and var. musanica, S. sincola, chiriquiensis, spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 127-130.

†Trigonostoma decorata sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 43.

†Tritonidea excisa race n. dumasi, T. (Endopachycheilus) umbilicaris sp. n. Eocene France, Cossmann Bul. Soc. Sci. Nat. Nantes 5 pp. 80-81.—T. (Cantharus) augsanana, njalindungensis, spp. n., Tertiary, Martin Samml. Geol. Reichsmus. 1 p. 460.

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†Typhis linguliferus, Dall. var. n. costaricensis Miocene Costa Rica, OLSSON Bul. Amer. Pal. 39 p. 132.

TURRIDAE, TEREBRIDÆ, CONIDÆ.

Acrista subgen. n. [Turridae], HEDLEY Rec. Austral. Mus. 13 p. 285.

Anacithara gen. n. with A. brevicostata, caelatura, exquisita, hebes, hervieri, leptalea, propinqua, rissoina, robusta, stricta, tumida spp. n., Queensland, Hedley Rec. Austral. Mus. 13 pp. 300-304.

†Ancistrosyrinx dalli sp. n. Miocene Costa Rica, Olsson Bul, Amer. Pal. 39 p. 60.

Asperdaphne nom. n. Scabrella Hedley with A. amplecta, capricornea spp. n., Queensland; A. bela nom. n. for Bela tasmanica May Tasmania; A. compacta sp. n. New S. Wales, Hedley Rec. Austral. Mus. 13 pp. 338-344.

Asthenotoma with A. cicatrigula sp. n. Queensland, Hedley Rec. Austral. Mus. 13 pp. 218-220.

† Asthenotoma, HEDLEY 285.

Austrodrillia with A. raiwitensis nom. n. for Drilla angasi, Suter, HEDLEY Rec. Austral. Mus. 13 pp. 247-249.

Awateria, HEDLEY 285.

Bathytoma, HEDLEY 285.

†Bathytoma (Epalxis) clathratula sp. n. Eocene France, Cossmann Bul. Soc. Sci. Nat. Nantes 5 p. 65.—B., HEDLEY 285

†Bela gibbosa sp. n. Eocene France, Cossmann Bul. Soc. Sci. Nat. Nantes 5 p. 66.—B. recticostulata sp. n. Pleistocene Japan Yokoyama J. Coll. Sci. Tokyo 44 p. 44.

Borsonia, HEDLEY 285.

†Borsonia cocoensis sp. n. Mioceno. Costa Rica, Olsson Bul. Amer. Pal. 39 p. 78.—Borsonia B. (Cordieria) bureaui sp. n. Eocene France, Cossmann Bul. Soc. Sci. Nat. Nantes 5 p. 66.— B., Hedley 285.

†Clava [vide etiam Clavus] costaricana, alajueta, spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 144-145.

†Clavatula (Perrona) birmanica sp. n. var singuensis var. n. Tertiary Burma VREDENBURG Rec. Geol. Surv. Ind. 51 p. 282.

Clavus [vide etiam Clava] with C. oeneus, candidulus, costatus, spp. n., Queensland, Hedley Rec. Austral, Mus. 13 pp. 254-257.

Columbarium, HEDLEY 285.

† Columbarium, HEDLEY, 285.

†Conidae, Pilsbry 473 p. 326.

Conus maculospira nom. n. for C. planiliratus Sow. Pilsbry Proc. Acad. Nat. Sci. Philad. 73 p. 307.

†Conus bocapanenisis, berryi, cacuminatus, molis var. bravoi, spp. & var. n., Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol. 3 pp. 38-41.—C. pseudomarginatus nom. n. for C. marginatus Cossm.—C. haytensis politispira, proteus humerosus, subspp. n., Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci., Philad. 73 pp. 307, 327, 332.—C. with C. veatchi, floridanus var. costaricensis, C. limonensis, musaensis, toroensis, planiliratus var. bocasensis, C. harrisi, spp. & varr. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 42-54.—C., LAVILLE 363.

†Cythara terminata var. costaricensis, C. limata var. & sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 77.

Daphnella with D. cestrum, cheverti, granata, sigmastoma, spp. n., Queensland, Hedley Rec. Austral. Mus. 13 pp. 324-330.

† Daphnella, HEDLEY 285.

Daphnellopsis with D. murex sp. n. Queensland, Hedley Rec. Austral. Mus. 13 p. 356.

† Drillia glabriuscula sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 40.—D. with D. papaya, coccos, chiriquiensis, citria, aquanica, limonica, bocataroensis, theobroma, aurantia, musacina, estrellana, limonetta, carruca, limonensis, cristobali, bocasensis, aquaensis, musa, lithocolletoides, cocosina spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 61-75.—D. winchesterae, macilenta rectaxis, gatunensis alia sp. & subspp. n., Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci. Philad. 73 pp. 318-319.— D. (Crassispira) kamaensis, cotteri, spp. n., Tertiary Burma, VREDENBURG Rec. Geol. Surv. Ind. 51 p. 283 .--D. (Tripia) cureti, dumasi, spp. n. Eocene France, Cossmann Bul. Soc. Sci. Nat. Nantes 5 pp. 59-60.

† Eopleurotoma nigeriensis sp. n, Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 23.

Epideira with E. gabensis Victoria; E. torquata Tasmania, spp. n., Hedley Rec. Austral, Mus. 13 pp. 228-231.

Etrema with E. acricula, capillata, catapasta, culmea, curtisiana, elegans, firma, labiosa, orirufa, polyderma, ravella, tortilabia, Queensland; E. sparula S. Australia, spp. n., HEDLEY Rec. Austral. Mus. 13 pp. 272-285.

Eucithara with E. alacris, arenivaga, brocha, monochoria, moraria, miriamica, phyllidis, spp. n., Queensland, Hedley Rec. Austral, Mus. 13 pp. 260-272.

Eucyclotoma with E. nobilis sp. n. Coral Sea, Hedley Rec. Austral, Mus. 13 pp. 354-356.

Exomilus, HEDLEY 285.

Filodrillia gen. n. [Turridae] with F. columnaria, ornata, Tasmania; F. mucronata, stadialis, steira New S. Wales, spp. n., Hedley Rec. Austral. Mus. 13 pp. 220-225.

†Filodrillia, HEDLEY 285.

Gemmula with G. hombroni nom. n. for Pleurotoma fusca, Hedley Rec. Austral. Mus. 13 pp. 217-218.

†Gemmula, HEDLEY 285.

†Genotia pseudopannus, ogurana, spp. n., Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 pp. 37–38.

†Glyphostoma moinica sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 76.

Guraleus with G. costatus New S. Wales; G. c. var wilesianus S. Australia; G. fascinus and var. stephenensis, G. morologus, permutatus New S. Wales; G. nitidus S. Australia, spp. & var. n. Hedley Rec. Austral. Mus. 13 pp. 311-323.

†Hemiconus rhytidophorus sp. n. Eccene France, Crossmann Bul. Soc. Sci. Nat. Nantes 5 p. 67.

Hemidaphne, Hedley 285.

Hemilienardia with H. hersilia, homochroa, spp. n., Queensland, HEDLEY Rec. Austral. Mus. 13 pp. 294–297.

†Hemilienardia, HEDLEY 285.

Heterocithara gen. n. with H. concinna, erismata, seriliola, transenna, spp. n., Queensland, Hedley Rec. Austral. Mus. 13 pp. 297-300.

† Heterocithara, HEDLEY 285.

Inquisitor with I. coriorudis, lacertosus, petilinus New S. Wales; I. fibratus, flindersianus, formidabilis, granobalteus, lassulus Queensland, spp. n., I. spurius nom. mut. for Pleurotoma tuberculata Gray 1839, HEDLEY Rec. Austral. Mus. 13 pp. 236-247.

Iredalea, Hedley 285.

Leiocithara gen. n. [Turridae], HED-LEY Rec. Austral. Mus. 13 p. 268.

Leucosyrinx, HEDLEY 285.

†Leucosyrinx chloris sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 59.

Lienardia with L. falsaria New Caledonia; L. corticea, fallaciosa, farsilis, gracilis, multinoda, periscelina, punctilla, ralla, rosella Queensland, spp. n. Hedley Rec. Austral. Mus. 13 pp. 282, 285-294.

Macteola with M. segesta Chenu var. n. cinctura Queensland, HEDLEY Rec. Austral. Mus. 13 pp. 323-324.

† Mangilia fukuchiana, M. (Cythara) rugosolabiata, oyuana, spp. n., Pleistocene Japan, Yokoyama J. Coll. Sci. Tokio 44 pp. 42-43.—M. (Glyphostoma) augsanana sp. n. Java sp. n. Tertiary, Martin Samml. Geol. Reichsmus. 1 p. 450.

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Mitrithara gen. n. [Turridae] with M. columnaria Tasmania; M. proles New S. Wales, Hedley Rec. Austral. Mus. 13 pp. 233-236.

† Mitrithara, HEDLEY 285.

Nepotilla with N. tropicalis sp. n. Queensland, Hedley Rec. Austral. Mus. 13 pp. 335-338.

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†Peratotoma ozodocolpa nom. rect. (P. ozocolpa) Eocene France, Cossmann Bul. Soc. Sci. Nat. Nantes 5 p. 64.

†Pleurotoma otagoënsis sp. n. Cretaceous N. Zealand, WILCKENS Pal. Bul. Geol. Surv. N.Z. 9 p. 35.—P. (Eupleurotoma) dalimieri sp. n. Eocene France, COSSMANN Bul. Soc. Sci. Nat. Nantes 5 p. 58.

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Pseudorhaphitoma with P. axicula, bipyramidata, crudelis, styracina, transitans Queensland; P. informis New S. Wales, spp. n., Hedley Rec. Austral. Mus. 13 pp. 306-311.

Scrinium gen. n. with S. furtivum sp. n. New S. Wales, Hedley Rec. Austral. Mus. 13 pp. 358-260.

Splendrillia subgen. n. [Turridae], HEDLEY Rec. Austral, Mus. 13 p. 250.

†Surcula africana sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 22.—S. arctasi sp. n. Eocene Belgium Lériche Bul. Soc. Géol. Belge: 31 p. 183.—S. occidentalis, thompsoni, spp. n., Quaternary Peru, Woods in Bosworth Geol. of Peru 1922 pp. 106-107.—S. promensis and var. silistrensis sp. & var. n. Tertiary India, Vredenburg Rec. Geol. Surv. Ind. 51 pp. 304-308.—S. (Pleurofusia) scala sp. n. Tertiary Burma, Vredenburg Rec. Geol. Surv. Ind. 51 pp. 282.

Teleochilus, HEDLEY 285.

†Teleochilus, HEDLEY 285.

†Terebra augsanana sp. n. Java Tertiary, MARTIN Samml. Reichsmus 1 p. 447.—T. chibana, smithi, quadriarata, latisulcata, suavidica, tsuboiana, spp. n., Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 pp. 32-35.--T. dalabeensis, T. (Duplicaria) theobaldi, cotteri, woodwardiana, Mart. var. mindegyiensis, myaunguensis, T. (Subula) cossmanni, T. (Myurella) promensis, birmanica, martini,hornelli kyudawonensis, euglyptica, tipperi, myuros, Lk. var obeliscus, T. (M.) oldhami, intermedia, T. (Hastula hırasei, lepperi, sethuramae, calamaria, pectinata, pagoda, mayoi, tittabweensis, iravadica, stuarti, herklotsi, Mart. var. arundinea, spp. & varr. n. Tertiary Burma VREDENBURG Rec. Geol. Surv. Ind. 51 pp. 346-351. -T. gausapata var. n. herviderana Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol. 3 p. 35.— \bar{T} . spirifera, Dall. var. midiensis, T. estrellana, costaricensis, T. benthalis, Dall. var. bocasensis, T. pumbriensis, spp. & varr. n., Miocene Costa Rica, Olsson Bul, Amer. Pal. 39 pp. 39-41. -T. (Subula) noetlingi, T. (Myurella) quettensis, spp. n., Tertiary Burma VREDENBURG Rec. Geol. Surv. Ind. 51 p. 281.

†Terebridae, Pilsbry 473 p. 315.

Turricula, Hedley 285.

†Turricula lavinoides & var. limonensis, T. taurina, terryi, spp. & var. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 55-57.—T., Hedley 285.

Turridrupa gen. n. [Turridae] with T. deceptrix, pertinax, spp. n., Queensland, Hedley Rec. Austral, Mus. 13 pp. 226-228, 359.

Turris, HEDLEY 285.

†Turris conspicua, altispira, spp. n., Tertiary Tasmania, May Papers and Proc. R. Soc. Tasmania 1921 pp. 11-12. —T., Hedley 285.

†Turritidae, Pilsbry 473 p. 316.

Veprecula with V. scala, vacillata and var. paucicostata, spp. & var. n., Queensland, Hedley Rec. Austral. Mus. 13 pp. 330-331.

Volutidae, Olividae, Marginellidae, Harpidae.

†Ancilla hinomotoensis sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 48.—A. (Sparella) birmanica sp. n. Tertiary Burma, VREDENBURG Rec. Geol. Surv. Ind. 51 p. 286.

†Ancillaria aquaensis sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 94.

†Athleta lugardi sp. n. Eccene Nigeria, Newton Geol. Surv. Nigeria 3 p. 25.—A. (Volutospina) jacobsi sp. n. Tertiary Burma, VREDENBURG Rec. Geol. Surv. Ind. 51 p. 286. †Cryptospira (Gibberula) allixi sp. n. Eccene France, Cossmann Bul, Soc. Sci. Nat. Nantes 5 p. 69.

†Harpa americana sp. n. Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci. Philad. 73 p. 337.

Marginella goubini, hervieri, montrouzieri New Caledonian waters; M. (Volvaria) micros Pacific; M. cherubini Seychelles spp. n., BAVAY J. conchliol. Paris 67 pp. 60-64.

† Marginella augsanana sp. n. Tertiary MARTIN Samml, Geol, Reichsmus 1 p. 452,—M. atkinsoni, corpulenta, subquinquidens, rotunda, altispira spp. n. Tertiary Tasmania, May Papers and Proc. R. Soc. Tasmania 1921 pp. 9-16. -M. cotamago, perovulum, spp. n., Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 49.—M. latissima var. pilsbryi, M. collina, musacina var. & spp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 96-98.—M. kitsoni sp. n. Tertiary Victoria, CHAP-MAN Rec. Geol. Surv. Victoria 4 p. 321.-M. (Stazziana) chantegraini sp. n. Eocene France, Cossmann Bul. Soc. Sci. Nat. Nantes 5 p. 68.

†Marginellidae, Pilsbry 473 p. 337.

†Oliva testacea, Lk. var costaricensis, O. mancinella var. & sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 90-91.

†Olivancillaria eocenica Quaternary; O. (Agaronia) peruviana Tertiary, spp. n., Woods in Bosworth Geol, of Peru 1922 pp. 105-106.

†Olivella goliath, limonensis and var. bocasensis, spp. & var. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 92-94.—O. minbuensis sp. n. Tertiary Burma, VREDENBURG Rec. Geol. Surv. Ind. 51 p. 286.—O. spretoides sp. n. Pleistocene Japan, YOKOYAMA J. Coll. Sci. Tokyo 44 p. 47.

†Olividae, Pilsbry 473 p. 334.

Pseudomarginella, Cooke 134.

†Scaphella costaricana, sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 100.

Voluta, CIRIA 119.

† Voluta (Aulica) sexuaplicata sp. n. Tertiary, Chapman Proc. R. Soc. Vict. 35 p. 15.

. Volutidae, Cooke 135.

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† Volutospina conicoturrita, multispinosa, spp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 pp. 27-28.

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†Amphelissa gen. n., ETHERIDGE Rec. Geol. Surv. N.S.W. 10 pp. 1-11.

†Encyclus pacificus sp. n. Trias S. America, JAWORSKI N. Jahrb. Min. Stuttgart Beil. Bd. 47 p. 140.

†Eutritonium with E. (Sassia) pilula, gouetense var. semitextum, spp. n., Eocene France, Crosmann Bul. Soc. Sci. Nat. Nantes 5 pp. 84–88.

†Lapparentia? ventricosior sp. n. Eccene France, Cossmann Bul. Soc. Sci. Nat. Nantes 5 p. 118.

† Polyamma axinoides [? sp. n.] Devon. N. S. Wales, ETHERIDGE Rec. Geol. Surv. N.S.W. 10 pp. 1-11.

† Pseudoscalites subarmatus sp. n. Trias S. America, Jaworski N. Jahrb. Min. Stuttgart Beil. Bd. p. 143.

†Scalitina montana subgen. & sp. n. Devon. Germany, Spriestersbach Jahrb. Geol. Landesanst. 38 T.1. pp. 508-509.

Opisthobranchia.

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†Acera with A. barremiensis sp. n. Barremian France, Gillet Bul. Soc. Geol. Paris 21 p. 40.

Aceridae, ODHNER 438 p. 4.

†Actaeon costaricensis sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 35.

†Actaeonella spitensis sp. n. Senonian Sinai, Hoppe Zs. D. Palästina-Ver. 1922 p. 137.

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†Actaeonina transatlantica, ovata, spp. n. Lias Argentina, Behrendsen Act. Acad. Ci. Cordoba 7 p. 168.

†Acteocina bullata, Kien. var. n. costaricana Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 35.—A., DALL 166.—A., STRONG 585.

†Acteocinidae, Pilsbry 473 p. 310.

†Acteonidae, Pilsbry 473 p. 310.

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Aplysia punctata, S. 530.

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†Avellanopsis gen. n., RICHE & ROMAN Trav. Lab. géol. Lyon 1 p. 94.

†Bullariidae, Pilsbry 473 p. 313.

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†Bulinella (Cylichnina) umbilicata var. subelongata nom mut. for Bulla elongata, Eichw., GRIPP Zs. D. geol. Ges. Abh. Berlin 74 p. 191.

†Bulla multiarata sp. n. Pleistocene Japan, Yокоуама J. Coll. Sci. Tokyo 44 p. 29.

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Calma glaucoides, Evans 202.

Cavolina (=Hermissenda) crassicornis, Esch., O'Donoghue 442.—C., O'Donoghue 439.

†Cavolinia cerullii, zamboninii [? spp. n.] Miocene Italy, Checchia-Risroli Bol. Com. geol. Roma 48 2 pp. 24-26.

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†Cinulia washitaensis sp. n. Cretaceous U.S.A., Adkins Univ. Texas Bul. 1856 p. 143.—C., Behrendsen 49 p. 212.

†Clio distefanoi, aichinoi, saccoi [? spp. n.] Miocene Italy, Checchia-Rispoli Bol. Com. geol. Roma 48 2 pp. 20-22.

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†Conularia, DYER 196a.

Coryphella with C. longicaudata sp. n. Vancouver Isd. region, O'DONOGHUE Trans, Canad. Inst. 14 p. 156.—C., O'DONOGHUE 440.

†Creseis gageliana sp. n. Tertiary, GRIPP Zs. D. geol. Ges. Abb. Berlin 74 p 192.

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†Cuvicrina paronai [? sp. n.] Miocene Italy, Checchia-Rispoli Bol. Com. Geol. Roma 48 2 p. 6.

†Cylichna thomsoniana sp. n. Cretaceous N. Zealand, WILOKENS Pal. Bul. Geol. Surv. N.Z. 9 p. 24.

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Diaphanidae, Odhner 438 p. 3.

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Dirona, O'Donoghue 440 & 441 p. 164.—D., O'Donoghue & O'Donoghue 443.

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†Dolabella (Sabaziella) texturata sp. n. Pliocene Italy, Issel Atti soc. lig. Genova 1 p. 123.

- Dorididae, ODHNER 438 p. 22.

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Doriopsidae, O'Donoghue 439.

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Elysia, Odhner 438 p. 45.

†Eriptycha punamutica sp. n. Cretaceous N. Zealand, WILCKENS Pal. Bul. Geol. Surv. N.Z. 9 p. 23.

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Galvina with G. olivacea sp. n.. Vancouver Isd. region, O'Donoghue Trans, Canad, Inst. 14 p. 158.—G., O'Donoghue & O'Donoghue 443.

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Hermissenda, O'Donoghue 440 & 441 p. 165.—H., O'Donoghue & O'Donoghue 443.

Janolus, O'DONOGHUE 439.

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Lamellidoris, O'Donoghue 440.— L., O'Donoghue & O'Donoghue 443.

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†Limacinidae, Pilsbry 473 p. 308.

Limapontia, ODHNER 438 p. 45.

Melibe leonina, Kjerschow-Agers-Borg 344.—M., O'Donoghue 439.

Nectophyllirhoe michaelsarsi fam. Nectophyllirhoidae nom. n. for Dactylopus michaelsarsii Bonnevie, Hoff-Mann Zool, Anz. 54 p. 304.

†Philine pygmaea, takatensis sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 28.

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Pleurophyllidia, O'Donoghue 440.

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Polycera, Scott 548.

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†Retusa sulcata subsp. n. fossilis Tertiary Santo Domingo, PILSBRY Proc. Acad. Nat. Sci., Philad. 73 p. 311.

†Ringiculidae, Pilsbry 473 p. 331.

Rostanga, O'DONOGHUE 441 p. 152.

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†Scaphandridae, Pilsbry 473 p. 313.

†Solidula clathrata sp. n. Pleistocene Јарап, Yокоуама J. Coll. Sci. Tokyo 44 p. 23.

Stiliger pica sp. n. Chilka Lake, SEWELL & Annandale Mem. Ind. Mus. 5 p. 700.—S., Odhner 488 p. 45.

†Styliola lamberti [? sp. n.] Miocene Italy, Checchia-Rispoli Bol, Com. Geol. Roma 48 2 p. 10.

†Talahabia dentifera gen. & sp. n. Java sp. n. Tertiary, Martin Samml. geol. Reichsmus 1 p. 446.

†Tentaculites roemeri sp. n. Devon. Germany, Dahmer Jahrb. geol. Landesanst. 37 T.1 p. 455.

Tethys willcoxi, SANFORD 534.

Thecacera, O'Donoghum 439.

†Tornatella, BEHRENDSEN 49 p. 192. Tornatinidae, Odhner 438 p. 2.

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† Volvula acutaeformis sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 26.

PULMONATA.

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†Adelinella subgen. n. (Radix) Tertiary, Wenz Senckenbergiana Frankfurt a. M. 4 p. 5.

Amphipeplea, Herfs 288 p. 564.

Ancylidae, BAKER 36 p. 63.

Ancylus with A. (Ferrissia) viola sp. n. Manipur, Annandale & Prashad Rec. Ind. Mus. 22 pp. 588-592.—A., Degner 172.—A., Weber 636 p. 483.

Auricula with A. limnaeiformis, percha, spp. n., Sumatra, Annandale in Prashad Rec. Ind. Mus. 22 pp. 467-468.

Auriculastra acuta sp. n. Portuguese S.E. Africa, Connolly Ann. Mag. Nat. Hist. 10 p. 121.

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† Ellobium citharellaeforme nom. n. Tertiary, Wenz Senckenbergiana Frankfurt a. M. 4 p. 5.

†Galba (G.) halavatsi, gaudryi nom. n. Tertiary, Wenz Senckenbergiana Frankfurt a. M. 4 p. 6.

Gyraulus, WENZ 644.

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—I., DEGNER 172.

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Limnaea [vide etiam Lymnaea] with L. ovalior sp. n. N.E. India, Annandale & Prashad Rec. Ind. Mus. 22 pp. 565-576.—L. glabra, Boycott 88.—L. natalensis, Cawston 104.—L. ovata, Van Herwerden 613.—L. pereger, Boycott 86.—L. stagnalis, Crapper 154.—L. s., Lawson 365.—L. s., Ludford 376.—L., Germain 237 & 238.—L., Weber 636 p. 473.

†Limnaea navaroi sp. n. Miocene Spain, Goméz Mem. Com. Inv. Pal. Madrid 30 p. 118.

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†Malexia pisolina nana nom. n. Tertiary, Wenz Senckenbergiana Frankfurt a. M. 4 p. 7.

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†Palaeoleuca subgen. n. Genotype Leuconia (P.)remiensis (Boissy) Tertiary WENZ Senckenbergiana Frankfurt a. M. 4 p. 8.

Physa fontinalis, CRAPPER 153.—P. heterostropha, COOPER 142.—P. ANNAN-DALE 16.

Physastra with P. doopi sp. n. Sumatra, Prashad Rec. Ind. Mus. 22 pp. 474-476.

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—P. metidjensis, Bettencourt & Borges 60.—P. pfeifferi, Cawston 104.
—P. umbilicatellus, Baker 38.—P., Cawston 105.—P., Degner 172.—P., Khalil 335.—P., Weber 636 p. 482.

†Planorbis fischeri nom. n. for P. submarginatus P. Fisch. Wenz Nachrbl. D. Malak. Ges. 1919 p. 74.—P. (Anisus) coislinensis, P. (Segmentina) bureaui, spp. n.. Eocene France, Cossmann Bul. soc. sci. nat. Nantes 5 p. 55.—P. (Armiger) lluccai sp. n. Miocene Spain, Goméz Mem. Com. Inv. Pal. Madrid 30 p. 132.—P., RAUTHER 501

†Pomarinula subgen. n. Genotype Marinula (P.) pfeifferi (Desh.) Tertiary, WENZ Senckenbergiana Frankfurt a. M. 4 p. 8.

† Radix (R.) pallaryi nom. n. Tertiary, Wenz Senckenbergiana Frankfurt a. M. 4 p. 7.

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Kerkophorus perfragilis sp. n. N. Transvaal, Connolly Proc. Malac. Soc. 15 p. 72.

Limax flavus var. virescens, Adams 2.

L. maximus, Hoffmann 293 & 295.

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Microcystina, Boettger 65.

†Macrozonites subgen. n. Genotype Grandipatula, (M.) umbilicalis (Desh.) Tertiary, WENZ Nachr. Bl. D. Malak. Ges. 1919 p. 77.

Milax (=Amalia) gagates, Carter 102.

Nesonanina gen. n., C. R. BOETTGER Abh. Senckenb. Nat. Ges. 36 heft 3 1918 p. 288 [Accidentally omitted from previous records].

Oxychilus Fitz. WATSON 635.

† Palaeoxestina gen. n. Genotype P. occlusa, (Edwards) Tertiary, WENZ Nachrbl, D. Malak, Ges. 1919 p. 77.

Paraegopis gen. n., HESSE Nachr. Bl. D. malak. Ges. 42 1910 p. 168 [Accidentally omitted from previous records].

Parvatella gen. n. Zonitidae, BLANFORD & GODWIN-AUSTEN Fauna Brit. India Moll. Testacellidae & Zonitidae London 1908 p. 145.

Petasina, BERRY 56.—P., WATSON 635.

Polita, Pilsbry 474.—P., Watson 635.

†Provitrina subgen. n. Genotype Vitrina (P.) rillyensis (Boissy) Tertiary WENZ Nachrbl. D. Malak. Ges. 1919 p. 78.

Sakiella gen. [n.] Zonitidae, Blanford & Godwin-Austen Fauna Brit. India Moll. Testacellidae & Zonitidae London 1908 p. 237.

Sarama gen. [n.] Zonitidae, BLANFORD & GODWIN-AUSTEN Fauna Brit. India Moll. Testacellidae & Zonitidae London 1908 p. 275.

Satiella gen. [n.] Zonitidae with S. flexilis, compressa, pertenuis, spp. n., India, Blanford & Godwin-Austen Fauna Brit. India Moll. Testacellidae & Zonitidae London 1908 pp. 221-224.

Sesara bidentifera sp. [n. ?] Burma, BLANFORD & GODWIN-AUSTEN Fauna Brit. Ind. Moll. Testacellidae & Zonitidae London 1908 p. 245,

Sitala diaphana sp. n. Portuguese S.E. Africa, Connolly Ann. Mag. Nat. Hist. 10 p. 116.—S. vulcania sp. n. India, Blanford & Godwin-Austen Fauna Brit. India Moll. Testacellidae & Zonitidae London 1908 p. 228.

Sophina forabilis var [n.?] bensoni Burma, Blanford & Godwin-Austen Fauna Brit. India Moll. Testacellidae & Zonitidae London 1908 p. 289.

Sophininae subfam. [n.] Zonitidae BLANFORD & GODWIN-AUSTEN Fauna Brit. India Moll, Testacellidae & Zonitidae London 1908 p. 283.

Syama subgen. [n.] Zonitidae with S. prona var. [n.?] huttoni, S. annandalei [sp. n.?] & S.? theobaldi sp. n. India, BLANFORD & GODWIN-AUSTEN Fauna Brit. India Moll. Testacellidae & Zonitidae London 1908 pp. 152-157.

Thapsia cavernicola, Usambara, T. silvaepluviosae, Meru; T. radiata, kibonotoensis, Kilimandjaro, spp. n., p'AILLY Kgl. Schwed. Ak. Wiss. Stockholm 1910 pp. 10-11.

Trochomorpha (Videna) planorbis perspectivica subsp. n. Malay Archipelago, BOETTGER Abh. Senckenb. Naturf. Ges. 35 p. 372.

Trochonanina membranacea sp. n. Kilimandjaro, D'AILLY Kgl. Schwed. Ak, Wiss, Stockholm 1910 p. 14.— T., GERMAIN 238.

Trochozonites with T. meruensis sp. n. Meru d'Allly Kgl. Schwed. Ak. Wiss. Stockholm 1910 p. 12.

†Vitrea subrimatula sp. n. Miocene, WENZ Senckenbergiana, Frankfurt a. M. 3 p. 26.

Vitrina with V. kiboschoensis, ericinellae, viridisplendens, spp. n., Kilimandjaro, D'AILLY Kgl. Schwed. Ak. Wiss. Stockholm 1910 pp. 8-9.—V. major, BOYCOTT 85.

Xesta, BOETTGER 65.

Zonitidae, Kobelt 347.

Zonitoides cookei sp. n. Vancouver Isd., Phsbry Nautilus 35 p. 38.—Z. (Pseudohyalina), Baker 42.

HELICIDÆ.

Acanthinula, with A. lamellata var. albida var. n. Sweden, SUNDLER J. Conch. Leeds 16 p. 185.

Aegista plectopyloides sp. n. Burma. EHRMANN Sitz. Ber. natf. Ges. 45-48 p. 14.

Albersia, BOETTGER 65. †Ammonitella, HANNA 278 p. 4. Archelix with A. trarensis sp. n. Algeria, Kobelt in Rossmässler's Icon. 20 pp. 19-24, 31-55.

Assyriella gen. n., HESSE Zool, Jahrb. Syst. 27 1908 p. 319 [Accidentally omitted from previous records].

Austrochloritis with A. rouxi sp. n. Malay Archipelago, Boettger Abh. Senckenb. Naturf. Ges. 35 pp. 379-381.

Averellia with Miraverellia subgen. n. Type A. sumichrasti Cr. & F., Baker Ann. Arbor Mich. occ. pprs. Mus. zool. No. 106 pp. 57-60.

†Bulimus gerundensis, VIDAL 618.

Callina, COCKERELL 121.

Candidula, Kob., WATSON 635.

Capillifera gen. n. Honigmann Abh. Mus. Naturk, Magdeburg Bd. 1 heft. 3 1906 p. 190 [Accidentally omitted from previous records].

†Cepaea lepida nom. n. for Helix pachystoma, Klein; C. gottschicki nom. n. for H. sylvestrina, Zieten, WENZ Nachrbl. D. Malak, Ges. 1919 p. 70.

Chloritis, BOETTGER 65.

Cochlogena, Pilsbry 475.

Cochlohydra, Pilsbry 475.

Crystallopsis, BOETTGER 65.

†Cyrtochilus, WENZ 646a p. 71.

Deserticola gen. n., HESSE Rossmässler's Iconographie Land u. Süssw. Moll. N.F. 16 1910 p. 95. [Accidentally omitted from previous records.]

Dorcasia, Degner 172.

Eobania gen. n. (Helicidae), Kobelt in Rossmässler's Icon. 23 p. 25.

Epiglypta gen. n., PILSBRY 1893 in Tryon's Man. Conch. ser. 2 viii p. 133. [Omitted from previous records].

†Epiphragmophora, HANNA 278 p. 9.

Eulota (E.) euomphala sp. n. Burma, Ehrmann SitzBer. natf. Ges. 45-48 ρ. 12.—Ε., ΒοΕΤΤΘΕΒ 65.

Euparypha with E. pisana mut. taylori nom. n. (H. p. s. v. donatii Taylor) Madeira, Cockerell Nautilus 35 p. 45.

†Gastrodonta imperforata sp. n. Miocene Oregon, HANNA Sci. Bul. Univ., Kansas 13 p. 5.

Gonyodiscus, BERRY 56.

Gyrostoma gen. n., HESSE zool. Jahrb. Syst. 27 1908 p. 320. [Accidentally omitted from previous records.]

Gyrostomella gen. n. HESSE Rossmässler's Iconographic Land u. Süssw. Moll. N.F. 16 1911 p. 113. [Accidentally omitted from previous records.]

Helicella heripensis, STELFOX 572.— H. (C.) ventricosa, Verco 616.—H., BERRY 56.—H., PILSBRY 474.—H., WATSON 635.

Helicidae, Kobelt 347.—H., Taylor 589 & 591.

†Helicodonta (Caracollina) disciformis nom, n. for Helix (Tectula) nummulina Mayer-Eymar emend. Sandberger 1874 Wenz Nachrbl. D. Malak. Ges. 1919 p. 72.

Helicogena, Pilsbry 475.

Helicopsis Fitz, Watson 635.

Helix with H. sjöstedti, alticola, Kilimandjaro; H. alienus, H. (Phasis) meruensis, Meru, spp. n., D'AILLY Kgl. Schwed. Ak. Wiss. Stockholm 1910 pp. 13-17.-H. (christophi var.?) atrolabioides sp. n.; H. gyrostoma var. n. quedenfeldti Tripoli, Kobelt in Rossmässler's Icon. 20 pp. 25, 54.—H. aspersa var. exalbida, BACCHUS 31.-H. a., JARRETT 316.—H. depressiformis and H. prostrata, Pilsbry & Cooke 483. -H. hortensis var. arenicola, Huggins 300.—H. h. LAWSON 364.—H. nemoralis and H. hortensis, Alkins 4.—H. n. and H. h., CARTWRIGHT 103.—H. n., GJAJA 251.—H. oregonensis, HANNA 279.—H. pisana, DUTERTRE 195.— H. p. MOUTIER 423.—H. pomatia, LIND 370.—H. p. ROCHLING 526.— H., CAZIOT 108.-H., GERMAIN 237.-H., KORSCHELT 349 .-- H., TEN CATE 593.

†Helix bolivari, pradoi, vilanovai, H. (Patula) supracostata, spp. n., Miocene Spain, Goméz Mem. Com. Inv. Pal. Madrid 30 pp. 139-144.—H. (Vallonia) pulchella, De Bolós 170.

Hemphillia gen. n., BLAND & BINNEY Ann. Lyc. Nat. Hist N.Y. 10 1872 p. 208 [Accidentally omitted from previous records].

Hygromia limbata with H. l. var. n. ecarinata England, Huggins J. Conch. Leeds 16 pp. 297-301.—H. fusca, Bacchus 33.—H., Watson 635.

†Lemniscia calva race. n. veterna Madeira, Cockerell Nautilus 35 p. 46.

Leptaxis with L. chrysomela var. bifasciata, furva var. grandissima varr. n. Nautilus 35 pp. 101-103.

Liburnica gen. n., Kobelt Rossmässler's Iconographie Land. u. Süssw. Moll. N.F. 11 1904 pp. 74, 131 [Accidentally omitted from previous records].

Martha with M. cereoflava podolica subsp. n. Poland, Poliński Ann. Zool. Mus. Polon, Hist. Nat. Warsaw 1 pp. 167-182.

Metafruticicola gen. n., IHERING Zeits. Wiss. Zool. 54 1892 pl. 452 [Omitted from previous records].

Ochthephila (Tectula) bulverii mut. n. albescens, O. (Discula) attrita mut. n. nigra, O. (D.) a. contracta race. n., O. (Callina) rotula mut. n. grisea Madeira COCKERELL Nautilus 35 p. 45.—O. COCKERELL 121.

†Ochthephila (Callina) crassiuscula sp. n. Pleistocene Madeira Isds., Cockerell J. Conch. Leeds 16 p. 310.

Omphalosagda gen. n. SANDBERGER Land u. Süssw. Conch. Vorwelt 1875 p. 405 [Accidentally omitted from previous records].

Oreohelix with O. strigosa canadica subsp. n. Canadian Rockies, Berry Mus. Bul. Ottawa 36 (Biol. ser. 8) pp. 4-6.

Pachyphallus sec. n. (Helicidae), Kobelt in Rossmässler's Icon. 23 p. 168.

Papuina, Boettger 65.

†Patula whitei nom. n. for Helix (P.) sepulta, White, WENZ Nachrbl. D. Malak. Ges. 1919 p. 74.

Planispira, BOETTGER 65.

Plectopylis (P.) goniobathmos sp. n. Burma, Ehrmann SitzBer. natf. Ges. 45-48 p. 10.

Plectotropis subangulata sp. n. Burma, Ehrmann SitzBer. natf. Ges. 45-48 p. 15.

†Pleurodiscus subgen. n. Genotype Gonyodiscus (P.) balmei (P. and Mich) Tertiary, Wenz Nachrbl. D. Malak. Ges. 1919 p. 78. Polygyra germana vancouverinsulae subsp. n. Vancouver, PLSBRY & COOKE Nautilus 35 p. 38.—P. multilineata algonquinensis, BAKER 38.—P., BERRY 56.

†Polygyra with P. expansa, martini, spp. n., Miocene Oregon, Hanna Sci. Bul. Univ. Kansas 13 pp. 7-8.

Punctum depressum, conicum, spp. n., Masatierra, Odhner Nat. hist of Juan Fernandez 3 2 p. 227 figs.—P. pallidum sp. n. Portuguese S.E. Africa, Connolly Ann. Mag. Nat. Hist. 10 p. 119.—P., Berry 56.

†Pyramidula mascallensis sp. n. Miocene Oregon, Hanna Sci. Bul. Univ. Kansas 13 p. 6.

Rhododerma sec. n. (Helicidae), Ko-BELT in Rossmässler's Icon. 23 p. 154.

Sculptaria with S. damarensis (H. Ad.) var. minor, S. leschkei sp. & var. n. S.W. Africa, Degner Beitr, Kennt. L. Süsswasserfauna D. S.W. Afrikas Hamburg. 1922 pp. 4–8.

Strobilops, Hanna 281.

Sulcobasis, BOETTGER 65.

Thiessea gen. n., Kobelt Rossmässler's Iconographie Land u. Süssw. Moll. N.F. 11 1904 pp. 76, 187 [Accidentally omitted from previous records].

Thysanophora with T. pilsbryi sp. n. Mexico, Baker Ann Arbor Mich. occ. pprs. mus. zool. No. 106 pp. 54-57.

Trichia, Watson 635.

Trochoidea, Brown, Watson 635.

Trochula Sch., WATSON 635.

Tyrrhenaria subgen. n. (Helicidae), Kobelt in Rossmässler's Icon, 23. p. 121.

Vallonia costellata, HAAS 275.

† Vallonia pallaryi nom. n. for V. subpulchella, Pallary, Wenz Nachrbl. D. Malak. Ges. 1919 p. 75.

Vorlex, Oken, KENNARD & WOOD-WARD 332.

Wiegmannia gen. n., HESSE Nachr. Bl. D. malak. Ges. 48 1916 p. 124 [Accidentally omitted from previous records].

ENDODONTIDÆ.

Erdodonta (Charopa) involuta, masafuerae, (Thaumatodon) occulta, skottsbergi, spp. n., Juan Fernandez, Odhner Nat. hist. of Juan Fernandez 32 pp. 228, 229, 252 figs.

Nesophila, BOETTGER 65.

Trachycystis ambigua, sericea, mcdowelli, rudicostata, soror, pura, vengoensis, spp. n., Portuguese S.E. Africa, Connolly Ann. Mag. Nat. Hist. 10 pp. 116–118.—T. with T. junodi, shilwaneensis, subpringuis. spp. n., N. Transvaal, Connolly Proc. Malac. Soc. 15 pp. 73–74.

ORTHALICIDÆ, BULIMULIDÆ, CYLINDRELLIDÆ.

Liquus, Simpson 556.

†Lychnus, with L. vitrollensis, aragonensis, dalloni, vidali, giganteus, spp. n., Cretaceous France, REPELIN Mém. soc. géol. Paris 23 Mém. 53 pp. 5-24.

PUPIDÆ, STENOGYRIDÆ, HELIOTERIDÆ.

Achatina with A. pilsbryi, Usambara; A. retzii Meru, spp. n., D'AILLY Kgl Schwed. Ak. Wiss. Stockholm 1910 pp. 20-22.—A., CONNOLLY 132.—A., DEGNER 172.—A., GERMAIN 238.

Achatinella multizonata, Cooke 136.

Alopia (A.) julii Siebenburgen; A. (Herilla) pavlovici, trescavicensis, excedens pseudalopia, exornata, ziegleri plasensis, i. ljubienicensis, illyrica medoroides, dacica perfecta, accedens discreta, bosniensis gastron Jugo-Slavia; A. (Medora) almissana garganensis Italy; A. (M.) kutschigi cotorensis Cattaro; A. (M.) graciliformis pren-· jensis Jugo-Slavia; A. (Agathylla) regularis castellastuana Cattaro., spp. & subspp. n., Kobelt in Rossmaesslers Icon. 21 pp. 33, 38-51 & 22 pp. 1-14.— A. with A. deaniana sp. n. Roumania, COOKE J. Conch. Leeds 16 pp. 302-306. -A., WAGNER 630.

Amastra irwiniana, spaldingi, davisiana, spp. n., Hawaiian Islands, Cooke Occ. pprs. Ber. P. Bishop Mus. Honolulu 3 pp. 213–215.—A. (Laminella) kuhnsi sp. n. Hawaiian Isds., Cooke Occ. pprs. Ber. P. Bishop Mus. Honolulu 3 p. 217.—[A.?] ricei and var. armillata [A.?] juddii, thurstoni, gouveii, elephantina,

modicella, umbilicata var. pluscula; Amastra remota, A. rugulosa varr. fastigata, annosa, A. flavescens var. emortua, A. whitei, conica var. gentilis, A. spicula, vinosa, fragosa, pogodula, sericea var. anaglypta, A. montivaga, paulula, praeopima, forbesi, hitchcocki, uniplicata var. vetuscula, A. mirabilis, flemingi, spp. & varr. n., Hawaiian Isds. Cooke Occ. Paprs. Ber. P. Bishop Mus. Honolulu 3 pp. 221-247.

Aprosphyma (Polyptychophora) swinhoei demonstrata subsp. n. Formosa, Wagner Ann. zool. Mus. Polon. Hist. Nat. Warsaw 1 p. 104.

Balea perversa, Alkins 4.

Buliminus with B. (Cerastus) théeli sp. n. Meru and Kilimandjaro, D'AILLY Kgl. Schwed. Ak. Wiss. Stockholm 1910 p. 18.—B., GERMAIN 237.

†Buliminus hassiacus nom. n. for Bulimus (Petreus) turgidulus, Sandb., WENZ Nachrbl. D. Malak. Ges. 1919 p. 69.

Caecilioides spencei sp. n. Belgian Congo, Duruis Ann. Soc. roy. zool. Belgique 58 pp. 47–48.

Clausilia (Cristataria) germaini Pallary sp. n. Syria Germain Moll. ter. fluv. Syrie Paris 1922 p. 122.—C. bidentata, Alkins 4.—C., Margier 393.

†Clausilia manca nom. n. for C. wetzleri Mill., WENZ Nachrbl. D. Malak. Ges. 1919 p. 71.

Clausiliidae, Kobelt 347.—C., Wag-Ner 631 & 632.

†Cochlicopa milleri nom. n. for C. exigua Mill., WENZ Nachrbl. D. Malak. Ges. 1919 p. 71.

Cochlodina, Pilsbry 475.

Columella, BERRY 56.

Curvella subgradata sp. n. Meru n'Ailly Kgl. Schwed, Ak, Wiss. Stockholm 1910 p. 27.

Edouardia junodi sp. n. Portuguese S.E. Africa, Connolly Ann. Mag. Nat. Hist. 10 p. 120.—Edouardia with E. mcbeaniana subsp. n. lemaneensis N. Transyaal, Connolly Proc. Malac. Soc. 15 pp. 74-75.

Ena with E. (Eburnea) serica, robusta, nitens, spp. n., S.W. Africa, DEGNER Beitr. Kennt. L. Susswasserfauna D. S.W. Afrikas Hamburg 1922 pp. 18-30.—E. jugoslaviensis sp. n. S.E. Europe, Wagner Ann. zool. Mus. Polon. Hist. Nat. Warsaw 1 p. 118.

Gastrocopta, Boettger 65.

†Laminifera minutissima sp. n. Miocene Germany, Fischer Arch. Moll. Frankfurt 54 p. 103.

Lauria, CONNOLLY 132.

†Lauria austriaca sp. n. Miocene, Wenz Senckenbergiana Frankfurt a. M. 3 p. 28.—L. gottschicki sp. n. Miocene Germany, Wenz Arch. Moll. Frankfurt 54 p. 107.—L. with L. bourbonensis Isd. of Bourbon; L. vincta watsoniana, L. sphinctostoma heterodon and simulator Madeira, sp. & subspp. n., Azoripupa see n. Pilsbry Man. Conch. [27] pp. 43–128.—L., Pilsbry 481.

Leptachatinae, Cooke 141 pp. 39-46. Leptinaria charlottei nom. n. for L. imperforata F. Baker, Baker Nautilus 35 p. 32.—L. striosa, Grensted 260.

Leucochiloides with L. minusculus (Mouss.) var. n. major S.W. Africa, DEGNER Beitr. Kennt. L. Süsswasserfauna D. S.W. Afrikas Hamburg 1922 pp. 31-34.

†Leucochylus edlaueri sp. n. Miocene, Wenz Senckenbergiana, Frankfurt a. M. 3 p. 30.

Leucostigma gen. n. (Clausiliidae) Wagner Nachr. Bl. D. Malak. Ges. Frankfurt a. M. 41 1919 p. 145.

Limicolaria, Germain 238.—L [imicolaria], [Anon] 21.

Limicolariopsis gen. n. with L. sjöstedti sp. n. Meru and Kilimandjaro, p'AILLY Kgl. Schwed. Ak. Wiss. Stockholm 1910 p. 24.

Lyropupa truncata sp. n. Hawaiian Isds., Cooke Occ. pprs. Ber. P. Bishop Mus. Honolulu 3 p. 211.

Nenia belahubbardi, flachi tingamariae, bryantwalkeri, spp. & subsp. n., Peru, Pilsbry Nautilus 35 pp. 93–95.— N., Poliński 485.

Neoserbica gen. n. (Clausiliidae), WAGNER NachrBl. D. Malak. Gos. Frankfurt a. M. 41 1919 p. 135.

Nesopupa bandulana sp. n. Portuguese S.E. Africa, Connolly Ann. Mag. Nat. Hist. 10 p. 119. Opeas varicosum, Meru, O. tangaense Usambara, spp. n., p'AILLY Kgl. Schwed. Ak. Wiss. Stockholm 1910 pp. 27–28.—O. vengoense, cressyi, spp. n., Portuguese E. Africa, Connolly Ann. Mag. Nat. Hist. 10 p. 120.—O., BOETTGER 65.

Orcula dolium tatrica subsp. n. Hungary, Wagner Ann. 2001. Mus. Polon. Hist. Nat., Warsaw 1 p. 121.—O. with O. scyphus palatilis Kurdistan; O. s. crassa Upper Euphrates; O. s. graecus Euboea, subspp. n., Pilsbry Man. Conch. [27] pp. 1-43.

†Orcula, Pilsbry 481 pp. 3-4.

Pacificella gen. n. (near Tornatellina), variabilis sp. n. Easter Island, ODHNER Nat. hist of Juan Fernandez 3 p. 249 figs.

Partulina horneri (Bald.) var. n. kapuana Hawaiian Isds., Gouveia Occ. pprs. Ber. P. Bishop Mus. Honolulu 7 p. 53.

Peruinia, Poliński 485.

Petriola alticola sp. n. Kilimandjaro, D'AILLY Kgl. Schwed. Ak. Wiss. Stockholm 1910 p. 27.

Protoherilla gen. n. Alopiinae with P. janickii, balaeiformis, spp. n., S.E. Europe, Wagner Ann. 2001. Mus. Polon. Hist. Nat. Warsaw 1 pp. 42-45.

Pseudotrochus janssensi sp. n. Belgian Congo, Dupuis & Putzeys Ann. Soc. roy. zool. Belgique 53 pp. 42-45.

Pupa with P. etrusca sp. n. & varr. n. major, minor, porcellata W., obesa Settep. Italy, Cazior Ann. soc. linn. Lyon 65 p. 99.

Pupilla fontana, Connolly 131.

Rachis Connolly 132.

Rachisellus, GERMAIN 238.

Subulina sinistrorsa sp. n. Belgian Congo, Dupuis Ann. Soc. roy. zool. Belgique 53 pp. 47-48.—S., Degner 172.—S., Germain 238.

Tornatellina with T. plicosa, callosa, aperta, spp. n., Masatierra, Odhner Nat. hist of Juan Fernandez 3 pp. 237-238 figs.

Tornatellinidae, COOKE 141 pp. 47-54. Vertigo, BERRY 56.—V., MOROS 418. OLEACINIDÆ, TESTACELLIDÆ.

Edentulina with E. montium sp. n. Kilimandjaro, D'AILLY Kgl. Schwed. Ak, Wiss. Stockholm 1910 pp. 4-5.

Ennea (Gulella) meruensis, Meru; E. (G.) coarctata, Kilimandjaro, spp. n., p'Ailly Kgl. Schwed. Ak. Wiss. Stockholm 1910 p. 6.—E. iredalei, Preston, Connolly 131.—E., Germain 238.

Gonaxis cressyi, G. (Eustreptaxis) vengoensis, spp. n., Portuguese S.E. Africa, Connolly Ann. Mag. Nat. Hist. 10 pp. 113-114.

Gulella enneadon, praelonga, tristão ensis, spp. n., Portuguese S.E. Africa, Con-NOLLY Ann. Mag. Nat. Hist. 10 pp. 114-115.—G. with G. bitzeensis [Loc?]; G. cancellata and var. minor, G. candela and var. minor, G. pisa, impedita, calva, filix, disseminata subsp. kekumegaensis, Kenya; G. (Paucidentina) dupuisi, Belgian Congo; G. (Plicigulella) salutationis, Tanganyika; G. (P.) perlata, Kenya; G. (Molarella) gwendolinae subsp. scissidens, Tanganyika, spp., subspp. & varr. n., Connolly Ann. Mag. Nat Hist. 10 pp. 491-501.—G. with G. sibasana sp. n. N. Transvaal, Connolly Proc. Malac. Soc. 15 pp. 70-72.—G. (Molarella) sec. n., CONNOLLY Ann. Mag. Nat. Hist. 10 pp. 500-501.

Marconia, CONNOLLY 131.

Orthogibbus, Germain = Gonospira, Swains, Dupuis Ann. Soc. roy. zool. Belgique 53 pp. 46-47.

Ptychotrema fisheri, Uganda; P. (Parennea) cedrorum Kenya, spp. n., Connolly Ann. Mag. Nat. Hist. 10. pp. 489-491.—P. (Parennea) connollyi sp. n. Belgian Congo, Dupuis & Putzeys Ann. Soc. roy. zool. Belgique 53 pp. 40-42.

Streptaxinae subfam. [n.] Testacellidae BLANFORD & GODWIN-AUSTEN Fauna Brit. India Moll. Testacellidae & Zonitidae London 1908 p. 1.

Streptostele with S. signata, Camerun; S. urguessensis, fallooni, kenyana, oribates, elongata, Kenya; S. validior, sinuilabiata, elgonensis, Uganda; S. hasta, clavulus, crassicrenulata, patruelis nyiroensis, osculum, ordinaria, crassi-

plicata, columna, Kenya; S. (Raffraya) clara, Camerun; S. (R.) curvata, Uganda; S. (R.) auriformis, Kenya; S. (R.) cylindrica, Uganda; S. (R.) constricta, Kenya; S. (R.) unidentata, N. Rhodesia; S. (Graptostele) candelula, Camerun; S. (G.) iota, jod, Kenya; S. (Varicostele) curvicolumella, Uganda, spp. n., Connolly Ann. Mag. Nat. Hist. 10 pp. 501-516.

Tayloria with T. shimbiensis sp. n. Kenya, Connolly Ann. Mag. Nat. Hist. 10 pp. 486-487.

†Testacella larteti tagica nom. n. Tertiary, Wenz Senckenbergiana Frankfurt a. M. 4 p. 7.

SUCCINEIDÆ.

Succinea with S. elegantior sp. n. Manipur, Annandale Rec. Ind. Mus. 22 pp. 592-602.—S. testa, masafuerae, spp. n., Juan Fernandez, Odhner Nathist. of Juan Fernandez 3 pp. 245, 253 figs.—S. oblonga, Taylor 390.—S., Berry 56.—S., Degner 172.

VERONICELLIDAE, ONCIDIIDÆ.

Onchidium, AREY & CROZIER 23.— O., HIRASAKA 290.

Vaginula roccatii [sp. n.] Uganda, Colosi Monitore zool, ital., 32 p. 125.— V. with V. borelliana, robusta, festae, pulchra, propinqua, lugubris, americana, difficilis, erinacea, morii, absumpta, attenuata, laurentiana, esilicaulis, spp. n., S. America, Colosi Ann. Mus. Hist. Nat. Buenos Aires 31 pp. 475-517.

Scaphopoda.

† Dentaliidae, Pilsbry 473, p. 399.

†Dentalium augsananum sp. n. Tertiary, Martin Samml. geol. Reichsmus. 1 p. 479.—D. bocasensis, uscarianum, spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 166.—D. (Fustiaria) nipponicum sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 119.—D. (Laevidentalium) morganianum sp. n. Cretaceous N. Zealand, Wilokens Pal. Bul. Geol. Surv. N.Z. 9 p. 24.

†Plagioglypta prosseri sp. n. Carbon U.S.A., MORNINGSTAR Geol. Surv. Ohio 25 p. 245.

†Siphodentaliidae, Pilsbry 473 p. 400.

Pelecypoda or Lamellibranchia. General.

†Lamellibranchia, GILLET 247.

PROTOBRANCHIA.

(Includes Solenomyidae, Nuculidae, Ledidae, Ctenodontidae, Praecardiidae, Grammysiidae, etc.)

†Cardiomorpha beushauseni sp. n. Devon Germany, Fuchs Abh. geol. Landesanst. 79 p. 58.

†Ctenodonta decukmanni, biornata, tenuidens, spp. n., Devon, Germany, Spriestersbach Abh. geol. Landesanst. 80 pp. 43-47.—C. eifeliensis, sp. n. Devon Germany, Viëtor Jahrb. geol. Landesanst. 37 2 p. 402.—C. solenoides sp. n. Devon Germany, Spriestersbach Jahrb. geol. Landesanst. 38 T. 1 p. 463.—C. (Koenenia) obsoleta var. n. giengelsbergensis Devon, Germany, Dahmer Jahrb. geol. Landesanst. 40 T.2 p. 247.

†Cucullella circularis, semicircularis, decipiens and var. aequalis, spp. & var. n. Devon Germany, Fuchs Abh. geol. Landesanst. 79 pp. 45-47.

†Grammysia frontesulcata, subtilistria, cullmanni, spp. n., G. abbreviata, Sandb. nom. mut. postera Devon Germany, Spriestersbach Jahrb. gool. Landesanst. 38 T. 1 pp. 481-486.—G. teres sp. n. Devon Germany, Spriestersbach Abb. geol. Landesanst. 80 p. 78.

†Leda davilae, quitanensis, ensinoides, dalliana, spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 173-175.

—L. ingens sp. n. Quaternary Peru, Woods in Bosworth Geol. of Peru 1922 p. 61.—L. prolongata sp. n. Carbon, U.S.A., Morningstar Geol. Surv. Ohio 25 p. 206.—L. with L. oxyrhynca sp. n. Trias S. America, Jaworski N. Jahrb. Min. Stuttgart Beil. Bd. 47 pp. 113-115.—L., Behrendsen 49 p. 173.

†Ledidae, Pilsbry 473 p. 402.

†Nucuta costaeimbricatus sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 73.—N. elongata sp. n. Carbon U.S.A., Morningstar Geol. Surv. Ohio 25 p. 201.—N. lieseri, Spr. var. n. similis Devon Germany, Spriestersbach Abh. geol. Landesanst. 80 p. 40.—N. nokonis, wenoensis, spp. n., Cretaceous U.S.A., Adkins Univ. Texas

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†Nuculana rhomboidea sp. n. Tertiary Tasmania, MAY Papers and Proc. R. Soc. Tasmania 1921 p. 12.—N. robustella, carinata, spp. n., Devon Germany, Spriestersbach Abh., geol. Landesanst. 80 pp. 41–42.—N. securiformis, Goldf. var. n. directa Devon Germany, Fuchs Abh., geol. Landesanst. 79 p. 47.

†Nuculidae, Pilsbry 473 p. 401.

†Solenomya?? sharonensis sp. n. Carbon U.S.A., Morningstar Geol. Surv. Ohio 25 p. 194.

† Yoldia reagani nom. n. for Y. impressa (Conrad) Reagan, DALL Amer. J. Sci. 4 p. 306.—Y. prima sp. n. Eocene, Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 p. 130.—Y. bocasensis [? sp. n.] Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 176.

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†Anomia berryi sp. n. Tertiary Peru Spieker Johns Hopkins Univ. Stud. Geol. 3 p. 127.—A. lunula, sematana, spp. n., Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 177.—A. with A. oligocaenica sp. n. Eocene, Cossmann Mém. soc. geol., Paris 23 & 24 Mém. 55 pp. 215–216.—A. talahabensis sp. n., Tertiary, Martin Samml. geol. Reichsmus 1 p. 481.—A. with A. (?) koeneni sp. n. Jura Argentina Act. Acad. Ci. Cordoba 7 pp. 177, 195.

†Anomiidae, Phisbry 473 p. 409.

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†Anadara nigeriensis sp. n. Eocene Nigeria, Newton Geol. Surv. Nigeria 3 p. 70.

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†Arca (Noetia) cholena, A. (Cunearca) zorritensis, A. (Scapharca) pantheonensis, zapotalensis, fissicosta, singewaldi, s. var. doma, vanholsti, charanensis, imporcata,

crescens, A. (Anadara) nelsoni, toroensis t. var. crassa, t. var prolata, spp. & varr. n., Tertiary Peru, Spieker Johns Hopkins Univ. Stud. Geol 3 pp. 95-125.—A. mauryae, costaricensis, honensis, golfoyaquensis Maury var. medicamericana, A. veatchi, cacica, lloydi, hindsi, spp. n., Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 182-193.—A. washitaensis sp. n. Cretaceous U.S.A., Adkins Univ. Texas Bul. 1856 p. 121.—A., Behrendsen 49 p. 195.—A., Shannon 552 p. 249.—A. with A. (Parallelepipedum) forojuliensis sp. n. Oligocene Italy, Lombardini Riv. Ital. Palaeont. 26 pp. 24-25.

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†Axinaea augsanana sp. n. Tertiary, MARTIN Samml, geol, Reichsmus 1 p. 484.

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†Cucullaria orientalis sp. n. Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 p. 191.

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†Limopsis areolata, nipponica, spp. n., Pleistocene Japan, Yokoyama J. Coll. Sci. Tokyo 44 pp. 194–195.—L. with L. boussaci sp. n. Eocene, Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 pp. 136–138.—L. monilis sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 177.

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Noëtia with N. olssoni sp. n. W. Coast of Panama, Maury Pal. Amer. Ithaca 1 p. 171.

†Nuculella, with N. taxandrica sp. n. Oligocene Belgium, VINCENT Ann. Soc. roy. zool, malac, Bruxelles 52 pp. 104-113.

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†Crenella divaricata sp. n. Pleistocene Japan, Yокоуама J. Coll. Sci. Tokyo 44 p. 175.

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†Gervillia [vide etiam Gervilleia] (?) quadricostata sp. n. Trias S. America, JAWORSKI N. Jahrb. Min. Stuttgart Beil Bd. 47 p. 108.—G., BEHRENDSEN 49 p. 221.

†Hoernesia curvata sp. n. Trias Indo-China, Mansuy Mém. serv. géol. Indochine 7 p. 40.—H., inflata, angusta, spp. n., Trias Indo-China, Mansuy Mém. serv. géol. Indo-chine 6 p. 8.

† Inoceramus lissoni sp. n. Cretaceous Berry and Stingewald Johns Hopkins Univ. Stud. Geol. 2 p. 69.—I., Behrendsen 206 pp. 172 206.—I., Böhm 70.

†Leiopteria drevermanni and var. longialata var. & sp. n. Devon Germany, Spriestersbach Abh. geol. Landesanst. 80 pp. 33-34.—L. multiincisa, excitata, coartata, spp. n., Devon, Germany, Puous Abh. geol. Landesanst. 79 pp. 37-40.—L., Reed 506 p. 270.

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†Modiola antiqua Goldf. var. n. arcuata Devon Germany, Viëtor Jahrb, geol. Landesanst. 37 2 p. 391.—M. with M. neuvillei, M. (Amygdalum) degrangei M. (Brachydontes) tenuilineata, spp. n., Eocene, Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 pp. 150–152.—M. (Septiola) nachamensis sp. n. Trias Indo-China, Mansuy Mém. serv. géol. Indochine 6 p. 10.—M., BEHRENDSEN 49 p. 207.

†Modiolaria with M. (Semimodiola) gausensis, M. (Planimodiola) oligocaenica, spp. n., Eocene, Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 pp. 152-154.

† Modiolopsis caobangensis sp. n. Devon Indo-China, Mansuy Mém., serv., géol. Indochine 8 p. 19.—M. prosinuata sp. n. Palaeozoic Indo-China, Mansuy Mém. serv. géol. Indochine 5 p. 54.

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† Myoconcha lamberti, icaunensis, spp. n., Cretaceous France, Gillet Bul. soc. sci. Yonne 75 p. 88.

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†Posidonia alberti magni sp. n. Lias Germany, Schnittmann Zs. D. geol. Ges. Berlin 74 p. 20.—P. girtyi, vintonensis, spp. n., Carbon. U.S.A., Morningstar Geol. Surv. Ohio 25 p. 214–216.

†Posidoniella orientalis sp. n. Ouralo-Permian Indo-China, Mansuy Mém. serv. géol. Indochine 8 p. 58.—P., Weigelt 638 pp. 95 101.

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† Pteria entomotis sp. n. Eocene, Coss-MANN Mém. soc. géol. Paris 23 & 24 Mém. 55 p. 158.

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†Aequipecten falki, brandesi, spp. n., Cretaceous, Böhm Jahrb. geol. Landesanst. 40 T. 2 p. 158.

†Amusium bocasensis sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 206.

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†Avicula di-stefanoi nom. n. for A. gaa, Jaworski N. Jahrb. Min. Stuttgart Beil. Bd. 47 p. 104.—A.? endrissi sp. n. Devon, Hüffner Jahrb. geol. Landesanst. 39 T. 1 p. 282.—A. semiradiata sp. n. Devon Germany, Spriestersbach Jahrb. geol. Landesanst. 38 T. 1 p. 456.—A. (Oxytoma) raricosta sp. n. Cretaceous Argentina, Bonarelli & Nágera Bol. 27 Min. Ag. Dir. Gen. Buenos Aires p. 26.—A., Weigelt 638 pp. 86 110.

†Aviculopecten amoenus sp. n. Devon Germany, Fuchs Abh. geol. Landesanst. 79 p. 41.—A. tenuistriatus, A. radiatus, Goldf. var. nodocostata sp. & var. n. Devon Germany, Spriestersbach Abh. Geol. Landesanst. 80 pp. 23 25.

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†Chlamys augsanana, talahabensis, spp. n., Tertiary, Martin Samml. geol. Reichsmus 1 pp. 482–483.—C. with C. fissicostulata sp. n. C. (Æquipecten) evoluens nom. mut. C. (Æ.) neuvillei sp. n. Eocene, Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 pp. 169–181.—C. theresinae sp. n. Tertiary Argentina, Roveretto Bol. Soc. geol. Ital. 40 p. 27.

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†Gosseletia flabellicosta sp. n. Devon Germany, Fuchs Abh. geol. Landesanst. 79 p. 42.—G. intermedia sp. n. Devon Germany, Viëtor Jahrb. geol. Landesanst. 37 2 p. 381.

†Hinnites mulderi sp. n. Tertiary, Chapman Proc. R. Soc. Vict. 35 p. 5.— H., Behrendsen 49 p. 176.—H., Piquenard 469.

†Limoptera difida, Sandb. mut. n. obscura, L. semiradiata, Frech var. n. obsoleta Devon Germany, Spriestersbach Abh. Geol. Landesanst. 80 pp. 26-27.—L. rarofurcata sp. n. Devon Germany, Fuchs Abh. geol. Landesanst. 79 p. 40.

† Monotis aviculaeformis sp. n. Trias Indo-China, Mansux Mém. Serv. géol. Indochine 8 p. 33.

†Myalina assimilis sp. n. Devon Germany, Fuchs Abh. geol. Landesanst. 79 p. 43.—M. bilsteinensis, F. Rom. var. n. sulcata, M. auriculata sp. n. Devon Germany, Spriestersbach Abh. geol. Landesanst. 80 pp. 35-36.—M. recurvirostris var. n. sinuosa Carbon. U.S.A., Morningstar Geol. Surv. Ohio 25 p. 219.—M. (Plethomytilus) securis, fallax, spp. n., Devon Germany, Dahmer Jahrb. geol. Landesanst. 40 T. 2 pp. 237-239.

†Neithea, Böhm 71.

Pecten (Chlamys) felipponei sp. n. Argentina, Dall Nautilus 35 p. 58.— P., Nordgård 434 p. 12.

†Pecten with P. bodenbenderi sp. n. Lias Argentina, Behrenden Act. Acad. Ci. Cordoba 7 pp. 173-176 195 196.—P. (?) banoensis sp. n. Jura Indo-China, Mansuy Mém. serv. géol.

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†Plicatula with P. neuvillei, boussaci, degrangei, sacyi, spp. n., Eocene, Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 pp. 195-198.—P. senilis sp. n. Cenomanian Sinai, Hoppe Zs. D. Palästina-Ver. 1922 p. 119.—P. youngi, dennanti, brevispina, spp. n., Tertiary, Chapman Proc. R. Soc. Vict. 35 pp. 5-6.

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†Pseudamussium tournoueri, P.? menteathi, spp. n., Eocone, Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 p. 182.

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†Pteria (Meleagrina) crassicardia sp. n. Tertiary, Chapman Proc. R. Soc. Vict. 35 p. 2.

†Pterinaea [vide etiam Pterinea] saepecostata, spriestersbachi, lorana, aequalicosta, spp. n., Devon, Germany, Fuchs Abh. geol. Landesanst. 79 pp. 32–37.

†Pterinea [vide etiam Pterinaea] lineata Goldf. mut. n. irregularis, P. subtilicosta sp. n. Devon Germany, Spriestersbach Abh. geol. Landesanst. 80 pp. 27 31.—P., Reed 506 p. 268.

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†Spondylus baileyana sp. n. Tertiary, Chapman Proc. R. Soc. Vict. 35 p. 7.—S. chiriquiensis sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 206.—S. with S. O'Gormani sp. n. Eocene, Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 pp. 185–193.

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†Dimyacidae, Pilsbry 453 p. 413.

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†Alectryonia lehneriana sp. n. Lias Germany, Schnittmann Zs. D. geol. Ges. Berlin 74 p. 20.

†Atrina mayeri nom. mut. Eccene Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 p. 165.

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†Enostrea, Douvillé 192.

†Exogyra, Behrendsen 49 pp. 198 218-219.

† Gryphaea, Behrendsen 49 p. 177.— G., Trueman 602.

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† Mimetostreon subgen. n. (Gryphaea) Cretaceous Argentina, BONARELLI & NAGERA Bol. 27 Min. Ag. Dir. Gen. Buenos Aires p. 21.

Monia, WINCKWORTH 651.

Ostrea edulis, Orton 452 & 454.

†Ostrea costaricensis sp. n. Miocene Costa Rica, Olsson Bul. Amer. Pal. 39 p. 196.—O. with O. hypermeces, O. (Cubitostrea) horsarieurensis, sarcignanensis, O. race evanescens, O. (Ostreola) subdorsata, spp. n., Eocene, Cossmann Mém. soc. géol. Paris 23 & 24 Mém. 55 pp. 199-210.—O. inca, buski, spp. n., Quaternary Peru, Woods in Bosworth Geol. of Peru 1922 pp. 64-65.—O. with O. moussonlensis sp. n. Tertiary France, Spain, Algeria, Tunis, ASTRE Bul. soc. hist. nat. Toulouse 50 p. 161.—O. njalindungensis, O. (Alectryonia) chlamydoides, longifolium, spp. n., Tertiary, MARTIN Samml. geol. Reichsmus 1 pp. 480-481.—O. valentini sp. n. Tertiary Argentina, ROVERETO Bol. Soc. geol. Ital. 40 p. 25.—O., BEHRENDSEN 49 pp. 177 196 207.—O., ØYEN 456.—O., TRUEMAN 602.

†Ostreidae, Pilsbry 473 p. 409.

†*Pinna*, Behrendsen **49** p. 217.— *P.*, Wenz **645**.

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†Alveinus, HARRIS 283.

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†Anisocardia wassyensis sp. n. Lower Cretaceous France, GILLET Bul, soc. géol. Paris 21 p. 16.

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†Astarte with A. aequilatera sp. n. Jura Argentina, Behrendsen Act. Acad. Ci. Cordoba 7 pp. 171 194 216.—
A. dumortieri sp. n. Lias France, Riche & Roman Trav. Lab. géol. Lyon 1 p. 123.—A. incae sp. n. Trias S. America Jaworski N. Jahrb. Min. Stuttgart Beil. Bd. 47 p. 128.

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†Cardinia nachamensis, latitruncata, spp. n. Lias, Indo-China, MANSUY Mém. serv. géol. Indochine 6 p. 17.

†Cardita caribbeanensis, matima, spp. n., Miocene, Costa Rica, Olsson Bul. Amer. Pal. 39 pp. 214-215.—C. costae-irregularis, costaenodulosis, triparticostata, spp. n., Eocene, Nigeria, Newton Geol. Surv. Nigeria 3 pp. 81-83.—C. huancavelicensis sp. n. Cretaceous,

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†Harpoceras bodenbenderi sp. n. Jura Argentina, Steuer Act. Acad. Ci. Cordoba 7 p. 106.—H., Behrendsen 49 p. 205.—H., Crick 155 p. 286.

†Hecticoceras with H. bonyi, thirriai, spp. n. Jura, France, Petiticlerc Descriptions de quelques formes nouvelles d'Ammonites, &c. Vesoul 1921 pp. 7-8 10-11 467.—H. with H. garreti sp. n. Jura France, Petiticlerc Note sur plusieurs espéces d'Ammonites &c. Vesoul 1918 pp. 7 21-22 468.—H. lunula var. n. trifurcata Jurassic, Lemoine Bul. soc. hist. nat. Chambéry 19 pp. 143-146.

†Helicoceras, Spath 562 p. 149.

Heteroteuthis, NAEF 427 Bd. I pls. viii xix.

†Hildaites subserpentinus sp. n. Whitbian, Buckman Type Amm. pt. 26 pl. ccxvii; H. serpentiniformis, Buckman op. cit. pt. 30 p. 55.

†Hildoceras with H. sublevisoni sp. n. Lias Italy, Fucini Pal. ital. Pisa 25 pp. 181 183.

†Hildoceratoides propeserpentinus sp. n. Whitbian, Buckman Type Amm. pt. 26 pl. cexviii.

Histioteuthis, NAEF 427 Bd. I pls. iii xv xvii; Bd. II pl. viii.—H., Degner 173.

†Hlawiceras platyrrymum sp. n. Bajocian, Buckman Type Amm. pt. 28 pl. ccsl.

†Holcodiscoides gen. n., Spath Trans. R. Soc. S. Af. 10 p. 124.

†Holcodiscus with H. seunesiformis sp. n. Cretaceous Italy, Rodighiero Pal. Ital. Pisa 25 pp. 99-101.

†Holcostephanus with H. (Astieria) bodenbenderi, depressus, spp. n., Jura Argentina, Steuer Act. Acad. Ci. Cordoba 7 p. 94.

†Homerites with H. heinrichii sp. n. Trias Austria, DIENER Denkschr. Ak. Wiss. Wien 97 pp. 465-466.

†Homoeoplanulites homoeomorphus sp. n., Buckman Type Amm. pt. 35 pl. ccexxviii.

†Hoplites with H. mendozanus, protractus, calistoides Jura; H. with H. angulatiformis, neumayri Cretaceous, spp. n., Argentina, Behrendsen Act. Acad. Ci. 7 pp. 181-185 210-211.—H. with H. subvetustus, quadripartitus, spp. n., Jura Argentina, Steuer Act. Acad. Ci. Cordoba 7 pp. 85-89.—H. (Dalmasiceras) spiticeroides, subspiticeroides, punctatum, Jurassic, France; H. kiliani, crassicostatum, Cretaceous, France, spp. n., DJANÉLIDZÉ Bul. soc. geol. Paris 21 pp. 256-274.—H., Franke 214.

†Hortoniceras sidericum sp. n., Buck-MAN Type Amm. pt. 32 pl. cexevi.

†Hypocladiscites, DIENER 179 p. 371.

Idiosepiomorphae trib. n., GRIMPE SitzBer, natf. Ges. 45-48 p. 43.

Illex coindeti, Chadwick 110.—I., Naef 427 Bd. I pls. xii xiv xvii.

†Inflaticeras gen. n., STIELER N. Jahrb. Min. 2 pp. 33-37.—I., STIELER 582.

†Joannites helenae, klipsteini, Mojs. var. aegaeica sp. & var. n. Trias, Renz Verh. Natf. Ges. 33 pp. 237 239.

†Jovites, DIENER 180 p. 466.

†Juvavites with J. angulocostatus, bülowii, salinarius, ampfereri, spp. n., Trias Austria, DIENER Denkschr. Ak. Wiss. Wien 97 pp. 468-472.

†Kallilytoceras interlineatum sp. n. Wessexian, Buckman Type Amm. pt. 25 pls. cciv A B.

†Kallistephanus kalus sp. n. Bajocian, Buckman Type Amm, pt. 27 pl. ccxxx. †Kamplokephalites kamplus sp. n., Buckman Type Amm, pt. 36 pl. cccxlvii.

†Kinkeliniceras gen. n., BUCKMAN Type Amm. pt. 27 p. 42.

† Kitchinites gen. n., Spath Trans. R. Soc. S. Af. 10 p. 127.

†Kleistoxyites protusus sp. n. Sonninian, Buckman Type Amm. pt. 33 pl. cccxvii.

†Kossmaticeras meseticum sp. n. Cretaceous Argentine, Bonarelli & Nágera Bol. 27 Min. Ag. Dir. Gen. Minas Buenos Aires p. 27.

†Kranaosphinctes kranaus sp. n. Argovian, Buckman Type Amm. pt. 28 pls. ccxliii A B.

 $\dagger \mathit{Kumatostephanus}\ \mathit{kumaterus}\ \mathsf{sp.}\ n.$ Sonninian, Buckman Type Amm. pt. 36 pls. cccxlv A B.

†Labyrinthoceras extensum sp. n. Bajocian, Buckman Type Amm. pt. 26 pl. cexiv; L. gibberulum, amphilaphes, spp. n., Sonninian, Buckman op. cit. pt. 31 pls. celxxviii & celxxix.

Lampadioteuthinae subfam. n., Grimpe SitzBer. natf. Ges. 45-48 p. 46.

†Leptosphinctes coronarius sp. n. Bajocian, Buckman Type Amm. pt. 25 pl. ccii.

†Leucopetrites leucus sp. n., BUCKMAN Type Amm. pt. 33 pl. ccevii A.

†Leukadiella helenae var. n. ticinensis Lias Switzerland, Renz Ec. Geol. Helvet. 17 p. 152.

†Leveillia, Shannon 552 p. 249.

†Lobites, DIENER 179.

Loliginae subfam. n., GRIMPE SitzBor. natf. Ges. 45-48 p. 44.

Loligo, NAEF 427 Bd. I pls. i ii xii xiv xvii; Bd. II pls. i vii.

†Lydistratites lyditicus sp. n., Buck-MAN Type Amm. pt. 37 pls. cccliii A B.

†Lytoceras with L. liebigi, Opp. mut. [? n.] aphiensis Cretaceous France, Fallot Mém. Carte Géol. Fr. 1920 pp. 230–232.—L. parvulum sp. n. Jura France, Grossouvre Bul. soc. géol. Paris 21 p. 314.—L. rangei sp. n. Vraconian Sinai, Hoffe Zs. D. Palästina-Ver. 1922 p. 142.—L., Gignoux 244.—L., Steuer 580 p. 105.

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†Lylodiscoides gen. n., Spath Trans. R. Soc. S. Af. 10 p. 126.

† Macrocephalites verus sp. n., Buckman Type Amm. pt. 35 pls. cccxxxiv AB.

† Macroscaphites, Fallot 205 p. 247. — M., Gignoux 244.

Macrotritopus, GRIMPE SitzBer. natf. Ges. 45-48 p. 41.

† Madarites madarus, calvus, pravus gen. & spp. n., Buckman Type Amm. pt. 28 pp. 42 45-46.—M. glabretus sp. n. Buckman op.cit. pt. 29 p. 52.

†Malayites with M. styriacus, steigers, antipatris, spp. n., Trias Austria, DIENER Denkschr. Ak. Wiss. Wien 97 pp. 487– 490.

† Manticoceras, Shannon 552 p. 251,

† Marathonites subgen. n. with M. Smithi, sulcatus, vidriensis, ? M. harqisi, spp. n., Permo-Carbon., Texas, Böse Bul. Univ. Texas 1762 pp. 133-145.

† Margarites, DIENER 180 p. 507.

† Medlicottia whitneyi, burckhardti, spp. n., Permo-Carbon., Texas, Böse Bul. Univ. Texas 1762 pp. 72-81.

† Megaphyllites, DIENER 179.

† Menuites gen. n., Spath Trans. R. Soc. S. Af. 10 p. 123.

† Merocanites gen. n., Schwindewolf Senckenbergiana Frankfurt a. M. 4 p. 15.

† Metacanites gen. n., Schwindewolf Senckenbergiana Frankfurt a. M. 4 p. 15.

Metacephalopoda subclass. n., GRIMPE SitzBer, natf. Ges. 45-48 p. 38.

†Metacoceras pottsvillensis sp. n. Carbon. U.S.A., Morningstar Geol. Surv. Ohio 25 p. 269.

† Metasibirites with M. krumbeckii sp. n. Trias Austria, DIENER Denkschr. Ak. Wiss. Wien 97 p. 510.

† Millites josephi sp. n. Trias Austria, DIENER Denkschr, Ak. Wiss. Wien 97 p. 510.

† Mollistephanus mollis sp. 7 n. 5 Sonninian, Buckman Type Amm. 1 pt. 36 pl. cccxliv.

†Morrisceras [=Morrisiceras] with M. korustes, tolmerum, homæoticum, comma, sknipum spp. n., Buckman Type Amm. Pt. 28 pp. 47-48 Pt. 32 pl. cclxxxv

† Morrisites fornicatus gen. & sp. n., Buckman Type Amm. 28 pp. 42 48.

†Mortoniceras stangeri (Baily) varr. n. sparsicosta, densecosta Cretaceous Pondoland, Spath Trans. R. Soc. S. Af. 10 p. 138.—M. worthenae sp. n. Cretaceous U.S.A., ADKINS Univ. Texas Bul. 1856 p. 91.

†Murleyiceras forte sp. n. Whitbian, Buckman Type Amm. pt. 29 pl. cexly; M. aptum sp. n., Buckman op. cit. pt. 34 pl. ceexvi.

†Nannolytoceras subovale sp. n., Buck-MAN Type Amm. pt. 34 pls. cccxxiv A B.

Nautilinae subfam. n., GRIMPE Sitz-Ber. natf. Ges. 45-48 p. 38.

Nautiloidea, WOODWARD 656.

Nautilus, NAEF 427 Bd. I pl. xvi.

†Nautilus with N. perstriatus sp. n. Jura Argentina, Steuer Act. Acad. Ci. Cordoba 7 p. 107.—N. rangei sp. n. Vraconian Sinai, Hoppe Zs. D. Palästina-Ver. 1922 p. 144.

† Neokentroceras with N. curvicornu, subtuberculatum, pseudovaricosum, spp. n., Cretaceous Angola, Spath Trans. R. Soc. Edinburgh 53 pp. 139-143.

†Nevadites lissoni, sutanensis, spp. n., Trias S. America, Jaworski N. Jahrb. Min. Stuttgart Beil. Bd. 47 pp. 159-165.

†Nowakites gen. n., Spath Trans. R. Soc. S. Af. 10 p. 124.

†Obtusicostites gen. n., BUCKMAN Type Amm. pt. 27 p. 42.

Octopodinae nom. n. Octopodidae, GRIMPE Zool, Anz. 52 p. 297.

Octopodoteuthis sicula varr. n. mediterranea, atlantica European Seas, GRIMPE SitzBer. natf. Ges. 45-48 p. 46.

Octopus bimaculatus, Parker 460.— O., vulgaris, Monticelli 414.—O., Craifaleanu 152.—O., Naef 427 Bd. I pls. ix x xiii xvi xviii; Bd. II pl. xxiv.

Ocythoë, NAEF 427 Bd. I pls. xvi xviii ; Bd. II pl. xxxvii.

†Odontoceras gen. n. with O. anglicum, Jura England; O. transgrediens, beneckei, laxicosta, subcallisto, koeneni, intercostatum, fasciatum, subfasciatum, kayseri, tenerum, gracile, ellipsostomum, fallax, nodulosum, curviplex, planum, raripartitum, rotula, malarguense, permulticostatum Jura, Argentina, spp. n., STEUER Act. Acad. Ci. Cordoba 7 pp. 65–85.

† Ecostephanus dolichoecus sp. n. Bajocian, Buckman Type Amm. pt. 30 pl. cclxv.

†Olcostephanus, Behrendsen 49 p. 212.

Ommatostrephes, NAEF 427 Bd. I pls. v vi xii xiv xvii xix; Bd. II pls. ix-xii.—O. todarus, S. 531.

Ommatostrephina fam. n., GRIMPE SitzBer, natf. Ges. 45-48 p. 48.

†Oncoceras, REUDEMANN 513a.

Onychoteuthis NAEF 427 Bd. I pls. iv xv xvii.

†Oppelia with O. barbieri sp. n. Jura France, Petitolero Note sur plusieurs espèces d'ammonites &c. Vesoul 1918 pp. 8 19 468.—O. gerardi, mazetieri, spp. n., Jura France, Petitolero Descriptions de quelques formes nouvelles d'ammonites &c. Vesoul 1921 pp. 4-5 467.—O. with O. perlaevis, perglabra, spp. n., Jura Argentina, Steuer Act. Acad. Ci. Cordoba 7 pp. 102-104.—O., Behrenden Steuer 1920 pp. 203.

†Orthoceras angustepartitum, patellifer, dispariseclusum and var. decipiens, O. proceracella, hunsrückianum, biornatum, biannulatum, spp. n., Devon Germany, Fuchs Abh. geol. Landesanst. 79 pp. 71–73.—O. giengelsbergensis sp. n. Devon Germany, Dahmer Jahrb. geol. Landesanst. 40 T. 2 p. 220.—O., Shannon 552 p. 250.—O., Reudemann 513a.

†Oxynoticeras leptodiscus sp. n. Lias Argentina, Behrendsen Act. Acad. Ci. Cordoba 7 p. 167.

†Pachanmatoceras pachu sp. n. Yeovilian, Buckman Type Amm. pt. 26 pl. cevii.

†Pachydesmoceras gen. n., Spath Trans. R. Soc. S. Af. 10 p. 127.

†Pachydiscoides gen. n., Spath Trans. R. Soc S. Af. 10 p. 124.

†Pachydiscus, BLONDET 64 p. 150.

†Paltarpites paltus sp. n., Buckman Type Amm. pt. 37 pl. ccclxxii A.

†Papilliceras acantherum sp. n. Bajocian, Buckman Type Amm. pt. 25 pls. cev A B.

†Paracellites multicostatus sp. n. Permo-Carbon, Texas, Böse Bul. Univ. Texas 1762 p. 108.

†Paralecanites altudensis sp. n. Permocarbon, Texas, Böse Bul. Univ. Texas 1762 p. 178.

†Paralegoceras incertum sp. n. Permocarbon. Texas, Böse Bul. Univ. Texas 1762 p. 100.

†Parapachydiscus zaccagnai sp. n. Cretaceous Tripoli, Fucini Mem. Descr. Carta Geol. Ital. 18 p. 120.

†Parapuzosia haughtoni sp. n. Cretaceous Pondoland sp. n. Cretaceous Pondoland, Spath Trans. R. Soc. S. Af. 10 p. 128.

†Paratropites with P. piritneri, myronis, spp. n., Trias Austria, DIENER Denkschr. Ak. Wiss. Wien 97 pp. 505–506.

†Paravirgatites paravirgatus sp. n., Buckman Type Amm. pt. 33 pl. cceviii.

†Parkinsonites fullonicus sp. n., Buck-Man Type Amm. pt. 33 pl. cecii and pt. 34 pl. cecii.*

†Paroniceras helveticum, sternale, Buch varr. mendrisiensis, castellensis sp. & varr. n. Lias Switzerland, Renz Ec. Geol. Helvet. 17 pp. 139-152.

†Patemorphoceras patescens sp. n., Buckman Type Amm. pt. 36 pl. cccli.

†Pelloceras J. Böhmi sp. n. Jura Germany, Kegel Jahrb. geol. Landesanst. 37 T. 1 p. 205.

†Pericyclus (Caenocyclus) perisphinctoides, P. carinatus, spp. n., Carbon; Germany, Schwindewolf Senckenbergiana Frankfurt a. M. 4 pp. 11 18.

† Perisphinctes with P. kokeni, torquatus, spp. n., Jura Argentina, Behrendsen Act. Acad. Ci. Cordoba 7 pp. 186–191 209.—P. with P. loncochensis.

densistriatus, fasciculatus, noduliferus spp. n., Jura Argentina, Steuer Act. Acad. Ci. Cordoba 7 pp. 90-93.—P. persicus, stahli, morgani, peluricus spp. n., Persia, Fischer Beitr. Pal. Geol. Ost.-Ung. 27 pp. 235-236 242. 245.—P. with P. colardi, meyeri, poisoti, retrocostatus, revoli, rochei, zelleri, spp. n., Jura, France, Petitclero Note sur plusieurs espèces d'ammonites &c. Vesoul 1918 pp. 10-18 20 22-25 468.—P., Petitclero 467 pp. 12-15.

†Peronoceras with P. ? sparsinodum sp. n. Lias Italy, FucintiPal, ital. Pisa 25 pp. 186-189.

†Perriniles gen. n. with P. vidriensis, compressus, spp. n., Permo-carbon., Texas, Böse Bul. Univ. Texas 1762 pp. 155-168.

†Phanerosphincles phanerus sp. n. Eningenian, Buckman Type Amm. pt. 26 pl. cexi.

†Phragmoceras, Prell 495.

†Phylloceras hafisi, ferdusi, spp. n., Persia, Fischer Beitr. Pal. Geol. Ost. Ung. 27 pp. 227-228.—P. homophyllum sp. n. Jura Argentina, Behrendsen Act. Acad. Ci. Cordoba 7 p. 202.—P. with P. moriezense, aptiense kiliani spp. n., Cretaceous, France, Sayn Mem. Carte Geol. Fr. 1920 pp. 192-200.—P., DIENER 179 p. 375.—P., GIGNOUX 243.

†Pictetia, Gignoux 244.

†Pinacoceras, DIENER 179 p. 383.

†Placites, DIENER 179.

†Planammatoceras planiforme sp. n., Buckman Type Amm. pt. 37 p. 256.

†Planisphinetes planilobus sp. n., BUCKMAN Type Amm. pt. 35 pl. ccexxvii.

†Pleurocephalites folliformis sp. n., BUCKMAN Type Amm. pt. 36 pl. cccxlviii.

†Pleurocephalites lophopleurus sp. n. Macrocephalitan, Buckman Type Amm. pt. 32 pls. celxxxiv A B.

†Pleurophorites pleurophorus, polypleurus gen. & spp. n., Buckman Type Amm. pt. 28 pp. 42 46-47.

Polypus, BELCHER 51.

†Polysphinctites polysphinctus sp. n., BUCKMAN Type Amm. pt. 34 pls. ccexxii A B C; P. replictus sp. n., BUCKMAN op. cit. pt. 37 pl. ccelix.

†Pompeckjites, DIENER 179 p. 385.

†Proarcestes irenae, arethusae, subtridentinus var. arteminae, spp. & var. n., Trias, Renz Verh. Natf. Ges. 33 pp. 230-234.—P. with P. sublabiatiformis, kerneri, welteri, spp. n., Trias, Austria, Diener Denkschr. Ak. Wiss. Wien 97 pp. 359-362.

†Prohysteroceras with P. decipiens, dubium, spp. n., Cretaceous, Angola, Spath Trans. R. Soc. Edinburgh 53 pp. 143-147.

†Prolecanites quadratus sp. n. Carbon. Germany, Schwindewolf Senckenbergiana Frankfurt a. M. 4 p. 15.

†Proplanulites with P. majesticus, basileus, laevigatus, ferruginosus, curvus, opimus, tornpuisti, polonicus, occultus, latus, laboratus, fabricatus, involutus lentus, apparatus, subcuneiformis, auriculatus, capistratus, rudis, oidaleus, stiphrus, petrosus, lyprus, tridens, trifurcatus, excentricus, partitus, rufus, fulvus, fracidus, spp. n., Buckman Type Amm. Pt. 26 pp. 33-40; P. capularis sp. n., Buckman op. cit. Pt. 27 p. 41; P. lobatus sp. n., Buckman op. cit. pt. 35 pl. ecexxx.

†Proplanulitidae fam. n., Buckman Type Amm, pt. 25 p. 32.

†Prorsisphinctes omphalicus sp. n., BUCKMAN Type Amm. pt. 35 pl. ccexxvi.

†Proteïtes thaleiae sp. n. Trias, Renz Verh, natf. Ges. 33 p. 247.

†Prothalassoceras gen. n. with P. welleri sp. n., Permo-carbon, Texas, Böse Bul, Univ. Texas 1762 pp. 102–106.

Protocephalopoda subclass. n., GRIMPE SitzBer. natf. Ges. 45-48 p. 38.

Prototeuthoidea fam. n., NAEF 35th Mon. Fauna Flora Golfes Neapel 1921 p. 142.

†Protrachyceras annamense sp. n. Trias Indo-China, Mansuy Mém. serv. géol. Indochine 7 p. 22.

†Pseudojacobites gen. n., Spath Trans. R. Soc. S. At. 10 p. 121.

†Pseudokossmaticeras gen. n., Spath Trans, R. Soc, S. Af, 10 p. 126.

†Pseudoschloenbachia pseudofournieri sp. n. Cretaceous Pondoland, Spath Trans. R. Soc. S. Af. 10 p. 140.

†Ptycharcestes heinricht sp. n. Trias Austria, Diener Denkschr. Ak. Wiss. Wien 97 p. 363.

†Ptychites with P. pauli Mojs var. moreana, P. plusiae, globus Hauer var. epidaurensis, sp. & varr. n. Trias, RENZ Verh. Natf. Ges. 33 pp. 224-229.—P., CLAUS 120.

†Ptychoceras, Spath 562 p. 150.

†Puzosia with P. emerici, Rasp. var. [? n.] strigosa sp. n. Cretaceous France, Fallot Mem. Carte Geol. Fr. 1920 pp. 247–261.—P. kossmati sp. n. Vraconian Sinai, Hoppe Zs. D. Palästina-Ver. 1922 p. 140.—P., Spath 562 p. 153.

†Reineckia with R. egregia, latior argentina, mutata, grandis, steinmanni turgida, pawlowi, mangaensis, proxima, fraudans, striolatissima, striolata, plunulistria, incerta, spp. n., Jura Argentina, Steuer Act. Acad. (E. Cordoba 7 pp. 49-65.—R. tilli sp. n. Porsia, Fischer Beitr. Pal. Geol. Ost. Ung. 27 p. 231.—R., Petitclero 468 p. 26.

†Rhabdoceras curvatum nom. n. for R. suessi, Hau, var curvatum, Mojs., JAWORSKI N. Jahrb, Min. Stuttgart Beil. Bd. 47 p. 153.

Rhynchoteuthion, NAEF 427 Bd. I pl. vi.

Rondeletiola, NAEF 427 Bd. I pl. xix.

†Rhytostephanus rhytus sp. n. Bajocian, Buckman Type Amm. pt. 29 pls. ccl A B,

Rossia, NAEF 427 Bd. I pls. xv xviii.

†Rugiferites rugifer gen. & sp. n., Buckman Type Amm. pt. 28 pp. 42 46.

†Sagenites, DIENER 180 p. 499.

†Sanmartinoceras patagonicum gen. & sp. n. Cretaceous Argentina, Bonarelli & Nágera Bol. 27 Min. Ag. Dir. Gen. Buenos Aires p. 27.

†Scaphites, Blondet 64 pp. 150-151.

†Schistoceras smithi, diversecostatum, spp. n., Permo-carbon., Texas, Böse Bul. Univ. Texas 1762 pp. 93-99. †Schloenbachia varians varr. ventriosa, nodulosa, costata varr. n. Cretaceous, Stieler N. Jahrb. Min. 2 pp. 31-33.— S. wenoensis, wintoni, spp. n., Cretaceous, U.S.A., Adkins Univ. Texas Bul. 1856 pp. 89-90.

†Schlotheimia, Trueman 603 p. 281.

Sepia, Belcher 51.—S., Ladreyt & Turchini 354.—S., Naef 427 Bd. I pls. vi vii xiii xv xviii; Bd. II pl. xiii.—S., Turchini 605 & 606.

Sepiadariidae fam. n., GRIMPE Sitz-Ber. natf. Ges. 45-48 p. 43.

Sepiaemorphae trib. n., GRIMPE Sitz-Ber. natf. Ges. 45-48 p. 44.

Sepietta, Naef 427 Bd. I pls. xv xviii xix; Bd. II pl. xxiii.

Sepiola with S. pfefferi sp. n. North Sea, Grimpe Zool. Anz. 53 p. 4.—S., Naef 427 Bd. I pls. xiii xix; Bd. II pl. xxiii.

†Sigaloceras micans sp. n. Callovian, Buckman Type Amm. pt. 29 pl. cclv.

†Silesites, Fallot 204.

†Skolekostephanus skolex sp. n. Bajocian, Buckman Type Amm. pt. 29 pl. cexlix.

†Sonneratia, BLONDET **64** pp. 148-149

†Sphaeroceras tutthum sp. n. Bajocian, Buckman Type Amm. pt. 30 pl. celviii.

Sphaeromorphites gen. n. with S. sphaeroidalis sp. n., Buckman Type Amm. pt. 28 p. 42 and pt. 29 p. 49.

Spirula, Prell **494.**—S., Schmidt **542.**

†Spirulirostra americana sp. n. Miocene America, Berry Amer. J. Sci. 3 pp. 327-334.—S. obtusa sp. n. Oligocene, Schlosser N. Jahrb. Min. Stuttgart Beil. Bd. 47 p. 277.

Spirulaemorphae trib. n., GRIMPE SitzBer. natf. Ges. 45-48 p. 43.

†Spiticeras falloti, lurense, planum Uhl. var. gallica, S. lamberti, subducale, spp. & var. n., Lower Cretaceous France, DJANÉLIDZÉ Trav. Lab. géol. Grenoble 12 pp. 324-332. †Stacheoceras bowmani, gilliamense, spp. n., Permo-carbon. Texas, Böse Bul. Univ. Texas 1762 pp. 128-133.—S. uralicum sp. n. Carbon Russia Fredericks Ann. Soc. Pal. Russia 3 p. 91.

†Stegeostephanus stegeus sp. n., Buckman Type Amm. pt. 33 pl. ccexii and pt. 34 p. ccexii.*

Stenoteuthis, NAEF 427 Bd. I pls. xii xiv xvii.

†Stephanoceras with S. damesi sp. n. Jura Argentina, Steuer Act. Acad. Ci. Cordoba 7 pp. 96-97.—S., Behrendsen 49 pp. 180 204.—S., Crick 155 p. 286.

†Stepheoceras plagium sp. n. Bajocian, Buckman Type Amm. pt. 27 pl. ccxxix.

†Stenarcestes, DIENER 179.

†Stomphosphinctes stomphus sp. n. Eningenian, Buckman Type Amm. pt. 29 pl. cexlvii.

†Strenoceras apleurum sp. n. Bajocian, Buckman Type Amm. pt. 28 pl. ccxxxix.

†Sturia, DIENER 179.

†Subschloenbachia with S. c.f. perinflata nom. n.; S. sp. n. aff perinflata nom. n.; S. sp. n. aff perinflata nom. n.; S. depressa sp. n.; S. cf. quadrata nom. n.; S. subrotunda, cycloceratoides, spp. n.; S. evoluta nom. n. for S. lanzi, Choff.; S. irregularis, S.? ambigua, S. greyoryi, robusta, striata, spp. n., Cretaceous Angola, Spath Trans. R. Soc. Edinburgh 53 pp. 113-131

†Suspensites suspensus sp. n., Buck-MAN Type Amm. pt. 36 pl. eccxlvi.

†Sutherlandiceras albisaxeum sp. n. Buckman Type Amm. pt. 34 pls. cccxx A B.

Symplectoteuthinae subfam. n., GRIMPE SitzBer. natf. Ges. 45-48 p. 49.

†Taramelliceras with T. frequens, T. (Creniceras) gombinei, spp. n., Jura France, Grossouvre Bul. soc. géol. Paris 21 pp. 308-311.

†Teloceras labrum sp. n., Buckman Type Amm. pt. 36 pls. cccl A B. †Tetragonites with T. depressus, Rasp. var. [? n.] kossmatelliformis sp. n. Cretaceous France, Fallot Mem. Carte Geol. Fr. 1920 pp. 237-247.—T., HAYASAKA 284.

†Teudopsis, CRICK 155 p. 288.

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IX. CRUSTACEA

ARRANGED BY

STEPHEN K. MONTGOMERY, B.A., B.Sc.

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X. ARACHNIDA

TO WHICH ARE ADDED

ARTHROPOD GROUPS

OTHER THAN

INSECTA AND CRUSTACEA.

[GIGANTOSTRACA (XIPHOSURA, EURYPTERIDA, TRILOBITA), PANTOPODA, TARDIGRADA, PENTASTOMIDA, MYRIOFODA, AND PROTOTRACHEATA.]

ARRANGED BY

STEPHEN K. MONTGOMERY, B.A., B.Sc.

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XI. INSECTA

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THE IMPERIAL BUREAU OF ENTOMOLOGY (Assisted by N. D. Riley and W. H. T. Tams).

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Macrolycinella gen.n. near Lycinella, bicolor sp. n. Mexico p. 21, Pic hors texte Echange 38.

Macrolycus inaequalis, diversipennis, spp. n., China p. 13 Pre hors-texte Echange 38.

Mesopteron longipenne Colombia, plurinotatum, staudingeri, scitum, carinatum, minutum, unifasciatum Peru, bolivianum, mapiriense, unimaculatum Bolivia, longeapicale, longissimum Ecuador, panamense Panama, notaticolla Brazil, baeri Argentina p. 27, reductum, peruvianum, inhumerale Peru, prolongatum Bolivia, depressicorne Venezuela, grande Colombia, p. 28, spp. n., Pio hors-texte Echango 38.

Metaenus scutellaris Malacca, laticollis Java, bipartitus Sumatra horstexte p. 11, spp. n., Pro Echange 37 1921.

Metapteron atronolatum Peru, apicicorne Bolivia p. 25, geniculatum, angustatum, signaticolle, reductum, apicale Brazil, testaceipenne Cuba, bogotense Colombia p. 26, spp. n., Pic horstexte Echange 38.

Metriorrhynchus enganoensis Engano, regularis Nias, notaticollis Sumatra, batjanensis, dohertyi Batchian, spp. n., hors-texte p. 11, Pic Echange 37 1921.—M. ramicornis p. 2 (fig.), angustus, p. 3 spp. n., Queensland, Lea Ark. Zool. 14 no. 11.

Microditoneces gen. n. near Plateros. brevelineatus Banguey, rubripennis Formosa. nigrosuturalis, humeralis. brevesuturalis, longesuturalis, manaensis, sirambeus Sumatra, nigroapicalis Java p. 5, bogorensis Bogor, longipennis, sparsecostatus (with var. n. notaticollis), ruficeps, verticalis, corporaali, longissimus, pallidicolor Sumatra, tuberculatus China, brevenotatus Formosa, pequensis India, minutus Ceylon, palawanus Palawan, lateralis New Guinea, andaiensis Andai p. 6, modiglianii, lateapicalis Sumatra, niasensis Nias, brevecostatus

vicinus Banguey, celebensis Celebes, elisus Tonkin, amplipennis Saigon, formosanus Formosa, annamitus Annam p. 7, spp. n., Pic hors-texte Echange 37 1921.

Microlycus gen. n. near Calolycus, minutus sp. n. Mexico p. 22, Pic horstexte Echange 38.

Microplateros gen. n. near Plateros, diversithorax (with var. n. borneensis) Sumatra, Borneo, latithorax, dohertyi, bruneiensis, capucinus, martapuranus Borneo, balabacanus Balabac, spp. n., p. 2, Pro hors-texte Echange 37 1921.

Microtrichalus gen. n. near Trichalus, singularis sp. n. (7 Java) hors-texte p. 9, Pro Echange 37 1921.

Mimoxylobanus gen. n., angustatus sp. n. Sumbawa hors-texte p. 11, Pic Echange 37 1921.

Odontocerus diversepunctatus, atropunctatus, rouyeri, corporaali Sumatra, testaceopunctatus Java, atrolineatus New Guinea, jobiensis Jobi I., roonensis Roon, celebensis Celebes, spp. n., hors-texte p. 12, Pic Echange 37 1921.

Planeteros atriventris, soppoensis, rectithorax, bicoloricornis, sibutensis, spp. n., Africa p. 21, Pio hors-texte Echange 38.

Plateros semilimbatus (crocatus?) subapicalis: Peru, inapicalis Ecuador, elongatior, reitteri Brazil (ephippiger? Venezuela), spp. n., roseicollis var. n. sallei p. 23, Pic hors-texte Echange 38.

Pseudoconderis gen. n. near Conderis, gorhami India, longipennis China, spp. n., p. 8, Pic hors-texte Echange 37 1921.

Pseudodontoderus pulcher sp. n. New Guinea hors-texte p. 12, Pic Echange 37 1921.

Pseudolinoptes gen. n. near Metapteron, foveolatus sp. n. Brazil p. 26, Pic hors-texte Echange 38.

Pseudosynchonnus gen. n. near Synchonnus, testaceus Malacca, costatus, apicalis Borneo, spp. n., hors-texte p. 13, Pic Echange 38.

Pyropterus malaccanus sp. n. Malacca hors-texte p. 13, Pic Echange 38. Samanga gen. n. near Xylobanus, fenestrata sp. n. Celebes hors-texte p. 9, Pic Echange 37 1921.—S. longicollis sp. n. Celebes p. 22, Pic hors-texte Echange 38.

Stadenus atripes Natal, parallelus Congo, spp. n., auberti var. geniculatus n. Fort Crampel p. 6, Pro Mélanges Exotico-Entomologiques 35.

Taphes modiglianii sp. n. Sumatra hors-texte p. 13, Pic Echange 38.

Tolianus gen. n. near Melampyrus, diversithorax Celebes p. 3, Pic horstexte Echange 37 1921.

Trichalus (Flabellotrichalus subgen. n.) notatithorax, bilineatus, spp. n.,
Batchian p. 9, celebensis Celebes p. 9,
divaricatus, pectoralis New Guinea,
keiensis, multicostatus Kei Is., foveolatus
Obi, sulcaticeps, submarginatus, atricollis, testaceicoxis Java, pallescens
Celebes, rubripennis p. 10, rouyeri p. 11
Sumatra, spp. n., Pro hors-texte
Echange 37 1921.—T. placidus, basipennis, spp. n., p. 5 (fig.) Queensland,
Lea Ark, Zool. 14 no. 11.

Villosotrichalus gen. n. near Trichalus reductus sp. n. Andai hors-texte p. 9, Pic Echange 37 1921.

Xylobanus indicus sp. n. India p. 6, Pic Mél. Exot. Ent. 35.—X. mocquerysi, leonensis, donckieri, sibutensis, atricornis, kisibanus Africa, ambrensis, tananarivanus, arcuatithorax, angustatus, conicus, atricolor Madagascar, nigricolor Celebes, parvulus, piceoscutus p. 14, testaceoscutus New Guinea, semiluteus, attenuaticollis, sublineatus, longus Java, martapuranus Borneo, flabellicornis, fenestratus, piceithorax, sumatrensis, corporaali, quinqueareolatus, latefenestratus p. 15, brevenotatus Sumatra, dohertyi Sula Besi, angustior, testaceipes, longissimus Celebes, atritarsis, notatipes Lombock, parallelus New Guinea, piceicollis (with var. n. latithorax), javanus, testaceus, pallidior Java, bogorensis Bogor, palawanus, sinuaticollis Palawan, rubrocostatus Japan, nigrimembris Formosa p. 16, rianganus, sericeus, diversicollis, differens Sumatra p. 17, spp. n., Pic hors-texte Echange 38.

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Ora semibrunnea, bivittata Brazil, spp. n., p. 5, Pic Mélanges Exotico-Entomologiques 37.

Scirtes postimpressus, piceonotatus, corumbanus, rufobinotatus, spp. n., vars. uninotatus, innotatus n. Brazil p. 6, Pic Mél. Exot. Ent. 37.—S. robustus sp. n. Tonkin p. 31, Pic Echange 38.—S. suturifer sp. n. Brazil (with varr. n. discojunctus, subfasciatus) p. 16, Pic Echange 37 1921.

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76 1915.—A. iliganica p. 54, davaoensis p. 55 Mindanao, ukerewensis Ukerewe p. 56, longicornis, spp. n., Cameroons p. 58, Moser Stett. Ent. Zeitung 78 1917.—A. kreyenbergi p. 211 S. China, invenusta p. 212, sauteri p. 213 Formosa, schenklingi p. 214 Assam, kanarana p. 215 India, setipes p. 216, benguellana, p. 217 Angola, spp. n., Microserica truncata Brsk. transferred to, p. 219, Moser Stett. Ent. Zeitung 79 1918.— A. koreana, lahulensis p. 330 India, spp. n., Moser, Stett. Ent. Zeitung 80 1919.—A. magnicornis India, angolana Angola p. 3, madibirana p. 4, kigonserana E. Africa p. 5, spp. n., Moser Stett. Ent. Zeitung 81 1920.—A. sparsesetosa, siargaoensis p. 101, subaana, isarogensis, kasigurana p. 102, fasciculata p. 103 Philippines, spp. n., Moser Stett. Ent. Zeitung 83.

Barybas clypeatus, peruanus p. 141, chacoensis, spp. n., S. America p. 142, Moser Stett. Ent. Zeitung 79 1918.

Blepharotoma nitidula sp. n. Brazil p. 117, Moser Stett. Ent. Zeitung 79 1918.

Brachylepis bennigseni Brsk., hauseri Pér. synonym of, p. 241, Moser Stett. Ent. Zeitung 79 1918.

Brahmina hirsuta p. 318, longiceps p. 321 India, rugifrons p. 319, brevipilosa p. 320 China, spp. n., Moser Stett. Ent. Zeitung 79 1918.—B. kuluensis sp. n. p. 352 N. W. India, Moser Stett. Ent. Zeitung 80 1919.—B. pubescens p. 10, pusilla p. 11, spp. n., India, Arrow Mission Guy Babault, Paris 1922.

Calodactylus boliviensis Bolivia p. 96, aequatorialis, Ecuador p. 97, spp. n., Moser Stett. Ent. Zeitung 79 1918.

Camenta erlli sp. n. p. 342 B.E. Africa, Moser Stett. Ent. Zeitung 80 1919.— C. angolensis sp. n. p. 14 Angola, Moser Stett. Ent. Zeitung 81 1920.—C. pilosa vide Phyllocamenta.

Cephalochiza gen. n. clypealis sp. n. E. Africa p. 26, Moser Stett. Ent. Zeitung 81 1920.

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Chariodactylus gen. n. chacoensis p. 45 Bolivia, sublaevicollis p. 46 Peru spp. n., Moser Stett. Ent. Zeitung 80 1919.

Chariodema tolimana sp. n. S. America p. 140, Moser Stett. Ent. Zeitung 79 1918.

Clavipalpus peruanus p. 119, aequatorialis p. 120, basalis p. 121, spp. n., S. America, Moser Stett. Ent. Zeitung 79 1918.

Comaserica sparsa p. 193, alluaudi p. 194, variegata p. 196, adspersa p. 197, macrophthalma p. 198, costatipennis p. 199, alternans, spp. n., Madagascar p. 200, MOSER Stett. Ent. Zeitung 76 1915.

Corminus brasiliensis p. 36, setulosus p. 37, oblongus p. 38, bahianus p. 39, parvulus p. 40 Brazil, spp. n., Moser Stett. Ent. Zeitung 80 1919.

Corynoserica gen. n. tetraphylla sp. n. p. 223 Angola, Moser Stett. Ent. Zeitung 79 1918.

Ctilocephala Burm., Serica asperula Perty transferred to, grisea p. 144, brasiliensis, amazonica p. 145, minuta p. 146, breviceps p. 147, abdominalis, spp. n., S. America p. 148, Moser Stett. Ent. Zeitung 79 1918.

Cyphochilus insulanus sp. n. p. 242 Formosa, Moser Stett. Ent. Zeitung 79 1918.

Cyrtotrochalus magnus sp. n. Cameroons p. 4, Moser Stett. Ent. Zeitung 77 1916.

Dasyus variabilis sp. n., collaris var. luridipennis n. Brazil p. 95, Moser Stett. Ent. Zeitung 79 1918.

Deroserica gen. n. p. 175, pulchra p. 176, compressiones, spp. n., India p. 177, Moser Stett. Ent. Zeitung 76 1915.

Dichelomorpha variabilis Borneo p. 93, tonkinensis Tonkin, malaccensis Malacca p. 94, kurseongana, spp. n., Kurseong p. 96, tebinggana Nonfr. synonym of sumatrana Nonfr., delauneyi Fleut. synonym of brenskei Nonfr., p. 97, Mosea Stett. Ent. Zeitung 78 1917. Dichelonycha oregona sp. n. Cal. p. 11, VAN DYKE Bull. Brooklyn Ent. Soc. 13

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Doxocalia tenuipes sp. n. Angola p. 64, Moser Stett. Ent. Zeitung 78 1917.

Ectinohoplia yunnana p. 361 Yunnan, formosana p. 362 Formosa, spp. n., Moser Stett. Ent. Zeitung 80 1919.

Elaphocerella gen. n. variabilis sp. n. p. 357 Abyssinia, Moser Stett. Ent. Zeitung 80 1919.

Empecamenta insulicola Sesse Isl. crinalis p. 343 Uganda, spp. n., Moser Stett. Ent. Zeitung 80 1919.—E. nairobiensis sp. n. p. 1 Nairobi, Moser Ark. Zool, 14 no. 9.

Encya maculata p. 58, unguicularis p. 59, montana p. 60 Madagascar, spp. n., Moser Stett. Ent. Zeitung 80. 1919.

Epipholis gen. n. p. 87, assiniensis sp. n. Fr. W. Africa p. 88, Moser Stett. Ent. Zeitung 78 1917.

Eriesthis bella sp. n. p. 326 German S.W. Africa, Moser Stett. Ent. Zeitung 79 1918.

Euphoresia graueri p. 221 British Uganda, assiniensis p. 222 Assinie, spp. n., Moser Stett. Ent. Zeitung 79 1918

Genyoschiza gen. n. tarsalis B.E. Africa p. 84, Moser Stett. Ent. Zeitung 78 1917.

Gymnoschiza setiventris sp. n. Cameroons p. 83, Moser Stett. Ent. Zeitung 78 1917.

Harpodactyla, Philochlaenia musiva Burm. transferred to, aeneovaria p. 110, viridifusca p. 111, aeneotincta p. 112, breviceps p. 113, viridescens, quadrifoliata S. America p. 114, spp. n., Moser Stettin. Ent. Zeitung 79 1918. H. lepichaeta, esperitosantensis, rufoflava p. 18 Brazil, spp. n., Moser Stettin Ent. Zeitung 80 1919.

Hemicamenta dubiosa Klb. vide Hybocamenta Brsk.

Hercitis testacea sp. n. Brazil p. 143, Moser Stettin Ent. Zeitung 79 1918.

Heterochelus manowanus sp. n. p. 328 Tanganyika Territory, Moser Stettin Ent. Zeitung 79 1918.

Heteronyx schenklingi p. 4, heynei, cuyabanus p. 5, bolivianus p. 6 spp. n., S. America, Moser Stettin Ent. Zeitung 80 1919.—H. papuanus, ciliatus p. 19, aruanus, insulanus laratanus p. 20, hirsutosetosus, asperatus p. 21, molucanus, amboinensis, p. 22 spp. n., Asiatic Archipelago, Moser Stettin Ent. Zeitung 81 1920.

Heteroschiza gen. n. plumata sp. n. Cameroons p. 87, Moser Stettin Ent. Zeitung 78 1917.

Heterotrochalus gen. n. macrophyllus sp. n. p. 230 Togoland, Moser Stettin Ent. Zeitung 79 1918.

Holotrichia borneensis sp. n. p. 317 Borneo, Moser Stettin Ent. Zeitung 79 1918.—H. vethi sp. n. Sumatra p. 90, Moser Stettin Ent. Zeitung 78 1917.

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Hoplorida gen. n. congoana sp. n. p. 337 French Congo, Moser Stettin Ent. Zeitung 79 1918.

Hoplosternus insulanus sp. n. p. 246 Formosa, Moser Stettin Ent. Zeitung 79 1918. Hybocamenta Brsk., Liocamenta Klb. synonym of, Hemicamenta dubiosa Klb. referred to p. 344, Moser Stettin Ent. Zeitung 80 1919.

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Lasioserica pilosa N.W. India, brevipilosa China p. 332, spp. n., Moser Stettin Ent. Zeitung 80 1919.

Lepisia vittata sp. n. German S.W. Africa p. 329, Moser Stettin Ent. Zeitung 79 1918.

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Liocamenta Klb. vide Hybocamenta Brsk.

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Listrochelus longiclavus sp. n. Texas p. 173, Fall Canad. Ent. 54.

Macrodactylus aeneipes p. 138, fulvipes, spp. n., S. America p. 139, Moser Stettin Ent. Zeitung 79 1918.

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Manodactylus gen. n. p. 43, gaujoni sp. n. p. 44 Ecuador, Moser Stettin Ent. Zeitung 80 1919.

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† Melolouthites avus sp. n. p. 36 Eocene Colorado (fig.), Cockerell Proc. U. S. Nat. Mus. 59.

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Ophthalmoserica khasiana sp. n. p. 210 Assam, Moser Stettin Ent. Zeitung 79 1918.

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Pachyderoserica gen. n. crassicollis sp. n. p. 11 India, Moser Stettin Ent. Zeitung 81 1920.

Pachyserica polyphylla sp. n. p. 10 Assam, Moser Stettin Ent. Zeitung 81 1920.

Paraclitopa fuscipennis sp. n. p. 354 S.W. Africa, Moser Stettin Ent. Zeitung 80 1919.

Pareriesthis gen. n. p. 327, bicornuta sp. n. p. 328 Nyassa & Angola, Moser Stettin Ent. Zeitung 79 1918.—P. acuticornis p. 359, bidentata, ertli p. 360 Angola spp. n., Moser Stettin Ent. Zeitung 80 1919.

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Periserica zamboangensis sp. n. Mindanao p. 61, Moser Stettin Ent. Zeitung 78 1917.

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Phullocamenta gen. n. for Camenta pilosa Qued. p. 231, Moser Stettin Ent. Zeitung 79 1918.

Phyllophaga [Lachnosterna] food habits of in Ill. and Kansas p. 131, McColloch & Hayes Bull. Brooklyn Ent. Soc. 17.

Phylloserica gracilis sp. n. Madagascar p. 201, Moser Stettin Ent. Zeitung 76 1915,—P. amberensis sp. n. p. 11 Madagascar, Moser Stettin Ent. Zeitung 81 1920.

Phyllotrochalus colini sp. n. Cameroons p. 3, Moser Stettin Ent. Zeitung 77 1916.

Phytalus latefissus p. 66, furcatus, propinquus p. 67, luridipennis p. 68, marcapatanus p. 69, vestitus p. 70, insulanus p. 71, picipennis p. 73, paraguayensis p. 74, spp. n., S. America, Moser Stettin Ent. Zeitung 79 1918.

Plectris vitticollis, niveoscutata p. 149. opacula p. 150, nigrita p. 151, maculipyga p. 152, brevisetosa p. 153, gracilicornis p. 154, setiventris p. 155, longula p. 156, amazonica p. 157, excisiceps p. 158, subaenea p. 159, signativentris p. 160, cinerascens p. 161, fusca p. 162, spp. n., S. America, Moser Stettin Ent. Zeitung 79 1918.—P. securifera sp. n. 47 Brazil, Moser Stettin Ent. Zeitung 80 1919.

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Pseudoliogenys gen. n. p. 358, flavidus sp. n. p. 359 Argentine, Moser Stettin Ent. Zeitung 80 1919.

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Sphaerotrochalus simillimus, madibiranus p. 341 Tanganyika Territory, spp. n., Moser Stettin Ent. Zeitung 80 1919.

Symmela angustula p. 7, boliviensis, brasiliensis p. 8, tarsalis p. 9 S. America, spp. n., Moser Stettin Ent. Zeitung 80 1919.

Tricholepis scutellaris p. 63, parvicollis p. 64 Madagascar, spp. n., Moser Stettin Ent. Zeitung 80 1919.

Trichoschiza gen. n. p. 81, gracilipes sp. n. Abyssinia p. 82, Moser Stettin Ent. Zeitung 78 1917.

Trioserica gen. n. p. 111, sparses-quamosa, lepichaeta, trifoliata p. 112 Philippines, Moser Stettin Ent. Zeitung

Trochaloserica obscurifrons sp. n. p. 12 E. Africa, Moser Stettin Ent. Zeitung 81 1920.

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RUTELIDAE.

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Diaphorocera carinicollis sp. n. Algeria p. 298, fig., Chobaut Bull. Soc. ent. France 1921.

Epicauta Redt., key to spp. parasitising locust eggs in Russia, and Siberia p. 23, Reichardt Petrograd Plant Protect. Sta. 1922.—E. ruficeps larva p. 147, Cros Ann. soc. ent. France 90.

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XII. PROCHORDATA

INCLUDING

ENTEROPNEUSTA AND PTEROBRANCHIA

В¥

J. R. NORMAN.

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XIV. REPTILIA AND BATRACHIA

ARRANGED BY

W. L. SCLATER.

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XV. AVES

ARRANGED BY

W. L. SCLATER, M.A.

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W. L. SCLATER.

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LIST OF ABBREVIATIONS WITH TITLES OF JOURNALS CONTAINING PAPERS DEALING WITH MATTERS OF ZOOLOGICAL IMPORTANCE.

- Aarsb. Selsk. Norsk Fiskerier Frem., Bergen.—Aarsberetning. Selskapet for de Norske Fiskeriers Fremme. Bergen. — Nor.
- Abh. Ak. Wiss., Berlin.—Abhandlungen der kgl. Akademie der Wissenschaften zu Berlin. Berlin. Ger.
- Abh. bayer. Ak. Wiss., München.—Abhandlungen der bayerischen Akademie der Wissenschaften. München. Ger.
- Abh. D. Seefischereiver., Berlin.—Abhandlungen des deutschen Seefischereivereins. Berlin. — Ger.
- Abh. geol. Landesanst., Berlin.—Abhandlungen der kgl. preussischen geologischen Landesanstalt. Berlin.—Ger.
- Abh. geol. Landesanst., Darmstadt.—Abhandlungen der grossherzoglich hessischen geologischen Landesanstalt zu Darmstadt. Darmstadt. Ger.
- Abh. Geol. RchsAnst., Wien.—Abhandlungen der k. k. Geologischen Reichs-Anstalt. Wien. Aus.
- Abh. Ges. Wiss., Göttingen.—Abhandlungen der kgl. Gesellschaft der Wissenschaften zu Göttingen. Berlin. Ger.
- Abh. Ges. Wiss., Leipzig.—Abhandlungen der kgl. sächsischen Gesellschaft der Wissenschaften. Leipzig. Ger.
- Abh. Heidelberg. Ak. Wiss.—Abhandlung der Heidelberger Akademie der Wissenschaften. Heidelberg. Ger.
- Abh. Mus. Natk., Magdeburg.—Museum für Natur- und Heimatkunde zu Magdeburg. Abhandlungen und Berichte. Magdeburg. Ger.
- Abh. natf. Ges., Görlitz.—Abhandlungen der naturforschenden Gesellschaft zu Görlitz. Ger.
- Abh. natf. Ges., Halle.—Abhandlungen der naturforschenden Gesellschaft zu Halle. Halle. Ger.
- Abh. nathisí. Ges., Nürnberg.—Abhandlungen der naturhistorischen Gesellschaft zu Nürnberg. Ger.
- Abh. natw. Ver., Bremen.—Abhandlungen, hrsg. v. naturwissenschaftlichen Verein zu Bremen. Ger.
- Abh. natw. Ver., Hamburg.—Abhandlungen aus dem Gebiete der Naturwissenschaften, hrsg. vom naturwissenschattlichen Verein in Hamburg. Ger.
- Abh. Schweiz. Pal. Ges., Basel.—Abhandlungen der schweizerischen paläontologischen Gesellschaft. Mémoires de la Société paléontologique suisse. Basel und Genf. 4to. Swi.
- Abh. Senckenb. Ges., Frankfurt a. M.—Abhandlungen hrsg. v. d. Senckenbergischen naturforschenden Gesellschaft. Frankfurt a. M. Ger.
 - Abh. Ver. Natk., Cassel.—Abhandlungen und Bericht des Vereins für Naturkunde zu Cassel. — Ger.
 - Abh. zool. Mus., Dresden.—Abhandlungen und Berichte des kgl. zoologischen und anthropologisch-ethnographischen Museums zu Dresden. Leipzig. Ger.

- Abh. ZoolBot. Ges., Wien.—Abhandlungen der Zoologisch-botanischen Gesellschaft in Wien. Jena. Aus.
- Abstr. Papers and Rep. Brighton., Nat. Hist. Soc.—Abstract of Papers and Report of the Brighton and Hove Natural History and Philosophical Society, Brighton. U.K.
- Act. Acad. Nac. Cien., Cordoba.—Actas de la Academia Nacional de Ciencias en Cordoba. — Arg.
- Act. Com. Univ. Dorpat., Tatu (= Dorpat).—Acta et Commentationes Universitatis Dorpatensis, Tartu (= Dorpat), Esthonia.
- Act. Mus. hist. nat., Rouen.—Actes du Muséum d'histoire naturelle. Rouen (Seine-Inférieure). Fr.
- Act. Soc. Chile, Santiago.—Actes de la Société scientifique du Chile, Santiago.

 Chile.
- Act. Soc. Fauna et Fl. Fenn, Helsingfors,—Acta Societatis pro Fauna et Flora Fennica. Helsingfors. Fin.
- Act. Soc. helvét. Sci. Nat., Genève.—Actes de la Société helvétique des sciences naturelles. Genève. —. Swi. vide Verh. Schweiz. Natf. Ges.
- Act. soc. linn., Bordeaux.—Actes de la société linnéene de Bordeaux (Gironde).
 Fr.
- Act. Soc. Sc. Fenn. Helsingfors.—Acta Societatis Scientiarum Fennicae. Helsingfors. 4to. Fin.
- Act. Univ., Lund.—Acta Universitatis Lundensis.—Lunds Universitets Arsskrift. Lund. 4to. — Swe.
- Act. Zool., Stockholm.—Acta Zoologica: Internationell Tidskrift för Zoologica. Stockholm. Swe.
- Agric. Gaz. Canada, Ottawa.—The Agricultural Gazette of Canada. Department of Agriculture, Ottawa. Can.
- Agric. Gaz., Sydney.—Agricultural Gazette of New South Wales, Sydney.—Australia.
- Agric. J. Ind., Calcutta.—The Agricultural Journal of India, Calcutta. Ind.
- Akad. Ert., Budapest.—Akademiai Ertesitő, Budapest. [Akademischer Anzeiger, Budapest.] Hun.
- Allatt. Közlem, Budapest.—Állattani Közlemények, Budapest. [Zoologische Mittheilungen, Budapest.] — Hun.
- Amat. Papillons, Paris.—L'Amateur de Papillons, Paris. Fr.
- Amer. Breed. Mag., Washington.—The American Breeders' Magazine, Washington, D.C. U.S.
- Amer. Geol., Minneapolis.—American Geologist, Minneapolis, Minnesota. U.S.
- Amer. J. Anat., Philadelphia.—The American Journal of Anatomy, published by the Wistar Institute of Anatomy and Biology, Philadelphia, Pa. [Includes Proc. Ass. Amer. Anat.] U.S.
- Amer. J. Physiol., Baltimore.—American Journal of Physiology, Baltimore. U.S.
- Amer. J. Sci., New Haven, Conn.—American Journal of Science, New Haven, Conn.
 U.S.
- Amer. J. Tropical Med., Baltimore.—The American Journal of Tropical Medicine, Baltimore Md. U.S.
- Amer. Midl. Nat., Notre Dame, Indiana.—The American Midland Naturalist, devoted to Natural History, primarily that of the Prairie States. Published by the University of Notre Dame, Notre Dame, Indiana. U.S.

- Amer. Mus. Novit., New York.—American Museum Novitates New York.— U.S.
- Amer. Nat., New York.—The American Naturalist, New York, or Lancaster, Pa., formerly Boston. U.S.
- Amtl. Ber. Natgesch. Samml., Danzig.—Amtlicher Bericht über die Verwaltung der naturgeschichtlichen vorgeschichtlichen und volksundlichen Sammlungen des westpreussischen Provinzial-Museums. Danzig. — Ger.
- An. Ac. Cs., Habana.—Anales de la Academia de ciencias, medicas, fisicas y naturales de la Habana. Havana, Cuba.
- An. cient. Parag., Puerto Bertoni.—Anales científicos Paraguayos, Puerto Bertoni. — Paraguay.
- An. Inst. Geol., Mexico.—Anales del Instituto Geológico de Mexico. Mex.
- An. Inst. Geol. Romaniei, Bucharest.—An. Institutul Geologic al României. Bucarest. [Annales de l'Institut géologique de Roumanie. Bucharest.] Rou.
- An. Mus. La Plata, Buenos Aires.—Anales de Museo de La Plata, Buenos Aires. — Argent.
- An. Mus., Montevideo.—Anales del Museo nacional de Montevideo, Montevideo. — Uruguay.
- An. Mus. Nac., Buenos Aires.—Anales del Museo nacional de Buenos Aires. Buenos Aires. Argent.
- An. Mus. Nac., Mexico.—Anales del Museo Nacional de Mexico. Mex.
- An. Soc. Cient. Argent., Buenos Aires.—Anales de la Sociedad cientifica argentina, Buenos Aires. — Argent.
- An. Univ. Chile, Santiago. Anales de la Universitad de Chile, Santiago. Chile.
- An. Zool. Aplic., Santiago.—Anales de Zoologica aplicada Santiago de Chile.
- Anat. Anz., Jena.—Anatomischer Anzeiger. Centralblatt für die gesammte wissenschaftliche Anatomie. Jena. Ger.
- Anat. Hefte, Wiesbaden vide Zs. ges. Anat.
- Anat. Rec., Philadelphia.—The Anatomical Record, Philadelphia. (Published by the Wistar Institute of Anatomy and Biology.) U.S.
- Andvari, Reykjavik.—Andvari Timarit hins islenzka thjódvinafjelags. Reykjavik.
 Iceland.
- Anex. Mem. Inst. Butantan, S. Paulo.—Anexos das Memórias do Instituto de Butantan, S. Paulo. — Braz.
- Ann. Acad. Române, Bucuresci.—Annalile Societatii Academice Române, Bucuresci (= Bucharest). Rou.
- Ann. Acad. Sci., New York.—Annals of the New York Academy of Sciences, New York. U.S.
- Ann. Acad. Sci. Fenn., Helsingfors.—Annales Academiae Scientiarum Fennicae, Helsingfors. — Fin.
- Ann. Applied Biol., Cambridge.—The Annals of Applied Biology. The Official Organ of the Association of Economic Biologists. Cambridge, U.K.
- Ann. ass. nat., Levallois-Perret.—Annales de l'association des naturalistes. Levallois. Perret. Fr.
- Ann. biol. lacustre, Bruxelles,—Annales de Biologie Lacustre, Bruxelles, Bel.
- Ann. Carnegie Mus., Pittsburg.—Annals of the Carnegie Museum, Pittsburg. Pa. U.S.

- Ann. Ent. Soc. Amer., Columbus, Ohio.—Annals of the Entomological Society of America. Columbus, Ohio. U.S.
- Ann. Fac. Sci., Marseille.—Annales de la Faculté des Sciences de Marseille (Bouches du Rhône). Fr.
- Ann. géol. Balkan., Belgrade.—Annales géologiques de la péninsule Balkanique. Belgrade. Servia.
- Ann. Géol. Pal., Turin.—Annales de Géologic et de Paleontologie (Gregorio), Turin and Palermo. — Ital.
- Ann. Hist.-Nat. Mus. Nat. Hung., Budapest.—Annales Historico-Naturales Musei Nationalis Hungarici, Budapest. Hun.
- Ann. Hist. Nat., Paris.—Annales d'Histoire Naturelle. Paris. 4to. Fr.
- Ann. Inst. océan., Monaco.—Annales de l'Institut océanographique de Monaco. Paris. — Fr.
- Ann. Inst. Pasteur, Paris.—Annales de l'Institut Pasteur. Paris. Fr.
- Ann. Mag. Nat. Hist., London.—Annals and Magazine of Natural History, London.
 U.K.
- Ann. Museo Civ. st. nat., Genova.—Annali del Museo Civico di storia naturale, Genova. It.
- Ann. Mus. Col., Marseille.—Annales du Musée Colonial de Marseille. Fr.
- Ann. Mus. Congo, Bruxelles.—État indépendant du Congo. Annales du Musée du Congo, publiées par ordre du Secrétaire d'état. Bruxelles. 4to. Bel.
- Ann. Mus., Durban.—Annals of the Durban Museum, Durban. S. Afr.
- Ann. Mus. Hist. Nat., Marseille.—Annales du Musée d'Histoire Naturelle de Marseille, 4to. Fr.
- Ann. Natal Govt. Mus., Pietermaritzburg.—Annals of the Natal Government Museum, Pietermaritzburg, printed in London. S. Afr.
- Ann. NatHist. Mus., Wien.—Annalen des Naturhistorischen Museums. Wien.
- Ann. Paléont., Paris.—Annales de Paléontologie publiées sous la direction de Marcellin Boule. Paris. Fr.
- Ann. Queensland Mus., Brisbane.—Annals of the Queensland Museum, Brisbane.
 Queensland.
- Ann. Ramb. Soc., Kilmarnock.—Kilmarnock Glenfield Ramblers Society Annals.
 U.K.
- Ann. Rep. Chester Soc. Nat. Sci.—Annual Report and Proceedings of the Chester Society of Natural Science, Literature and Art, Chester. — U.K.
- Ann. Rep. Christ's Hosp. Nat. Hist. Soc., Horsham.—Annual Report of the Christ's Hospital Natural History Society, Horsham. U.K.
- Ann. Rep. E. Kent Nat. Hist. Soc., Canterbury.—Annual Report and Transactions of the East Kent Scientific and Natural History Society, Canterbury. U.K.
- Ann. Rep. Ent. Soc. Ont., Toronto.—Annual Report of the Entomological Society of Ontario, Toronto. — Can.
- Ann. Rep. Florida Geol. Surv., Tallahasse.—Annual Report Florida Geological Survey, Tallahassee, Fla. U.S.
- Ann. Rep. Geol. Comm., Cape Town.—Annual Report of the Geological Commission, Cape Town. S. Afr.
- Ann. Rep. N. Staff. F. Cl., Stone.—Annual report and transactions of the North Staffordshire Naturalists' Field Club and Archæological Society, Stone. U.K.

- Ann. Rep. Nat. Hist. Soc., Peterborough.—Annual Report of the Natural History Scientific and Archæological Society, Peterborough. U.K.
- Ann. Rep. Proc. Barrow Nat. F. Cl.—Annual Report and Proceedings of the Barrow Naturalists' Field Club, Barrow-in-Furness. U.K.
- Ann. Rep. Proc. Bristol Nat. Soc.—Annual Report and Proceedings of the Bristol Naturalists' Society, Bristol. U.K.
- Ann. Rep. Proc. Belfast Nat. Hist. Phil. Soc.—Annual Report and Proceedings of the Belfast Natural History and Philosophical Society, Belfast. U.K.
- Ann. Rep. R. Cornwall Polyt. Soc., Falmouth.—Annual Report of the Royal Cornwall Polytechnic Society, Falmouth. U.K.
- Ann. Rep. Smithsonian Inst., Washington.—Smithsonian Institution. Annual Report of the Board of Regents, Washington, D.C. U.S.
- Ann. Rep. Trans. Manchester Microsc. Soc..—Annual Report and Transactions of the Manchester Microscopical Society, Manchester. U.K.
- Ann. Rep. Trans. Nottingham Nat. Soc.—Annual Report and Transactions of the Nottingham Naturalists' Society, Nottingham. U.K.
- Ann. Rep. Trans. Plymouth Inst.—Annual Reports and Transactions of the Plymouth Institution, Plymouth. U.K.
- Ann. Rep. U.S. Nat. Mus., Washington.—Smithsonian Institution. U.S. National Museum. Annual Report of the Board of Regents of the Smithsonian Institution, Washington, D.C. —U.S.
- Ann. Rep. Wellington Coll. Nat. Sci. Soc.—Annual Report of the Wellington College Natural Science Society, Wellington Coll. — U.K.
- Ann. Rep. Yorks, Phil. Soc., York.—Annual Report of the Council of the Yorkshire Philosophical Society, York. U.K.
- Ann. S. Afric. Mus., Cape Town.—Annals of the South African Museum, Cape Town.—S. Afr
- Ann. sci. nat. (Zool.), Paris.—Annales des sciences naturelles, paraît en deux parties: 1. Zoologie et Paléontologie, comprenant l'anatomie, la physiologie, la classification et l'histoire naturelle des animaux. Paris. Fr.
- Ann. Scuola sup. agric., Portici.—Annali della Scuola superiore di agricoltura. Portici. — It.
- Ann. Soc. agricult., Lyon.—Annales de la société d'agriculture, science et industrie de Lyon (Rhône). Fr.
- Ann. Soc. ent. Belgique, Bruxelles.—Annales de la Société entomologique de Belgique. Bruxelles. Bel.
- Ann. soc. ent., Paris.—Annales de la société entomologique de France. Paris.

 Fr.
- Ann. Soc. géol. Belgique, Liége.—Annales de la Société géologique de Belgique. Liége. — Bel.
- Ann. soc. géol., Lille.—Annales de la société géologique du Nord. Lille (Nord).

 Fr.
- Ann. soc. linn., Lyon.—Annales de la société linnéenne. Lyon (Rhône). Fr.
- Ann. Soc. Palaeont. Russ., Petrograd.—Annuaire de la Société Paleontologique de Russie, Petrograd. Russ.
- Ann. Soc. roy. zool. malac., Bruxelles.—Annales des séances de la Société royale zoologique et malacologique de Belgique Bruxelles. [Comprend Bul et Mém.] Bel.

- Ann. Soc. sci., Bruxelles.—Annales de la Société scientifique de Bruxelles (Louvain).
 Bel.
- Ann. soc. sci. nat. Acad. bel.-let., la Rochelle.—Annales de la section des sciences naturelles de l'Académie des Belles-lettres, sciences et arts de la Rochelle (Charente-Inférieure). Fr.
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